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Report Number: 208S-TRC-04-003

Vehicle Safety Compliance Testing for FMVSS 208
for Occupant Crash Protection
Sled Test

DaimlerChrysler Corporation
2004 Chrysler Pacifica MPV
NHTSA Number: C40307
TRC Inc. Test Number: S040419

Transportation Research Center Inc.
10820 State Route 347
East Liberty, OH 43319



Test Date: April 19, 2004
Report Date: April 30, 2004

Final Report

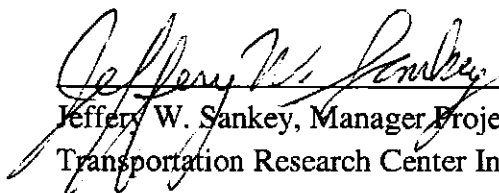
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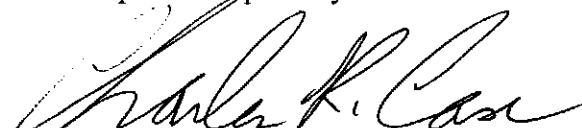
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16. Abstract An FMVSS 208 Section 13 compliance sled test was conducted on a 2004 Chrysler Pacifica MPV, NHTSA No. C40307, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP208S-01 for the determination of FMVSS 208 compliance. Possible test failures identified were as follows: None			
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Purpose

This Federal Motor Vehicle Safety Standard (FMVSS) 208 compliance sled test is part of the FMVSS compliance test program conducted for the National Highway Traffic Safety Administration (NHTSA) by the Transportation Research Center Inc. (TRC Inc.) under Contract No. DTNH22-03-D-01002. The purpose of this test was to determine if the subject vehicle, a 2004 Chrysler Pacifica MPV, NHTSA No.C40307, meets the performance requirements of FMVSS 208, "Occupant Crash Protection," in the impact simulation sled test mode.

Test Procedure

This test was conducted in accordance with NHTSA's Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure No. TP-208S-01, dated January 15, 1998. Data was obtained relative to FMVSS 208, "Occupant Crash Protection," performance.

The sled test vehicle was instrumented with four (4) accelerometers to measure longitudinal accelerations. The sled was instrumented with one (1) longitudinal accelerometer, which is prefiltered with an analog filter to 200 Hz as an integral part of the sled firing circuit, and two (2) additional accelerometers: the primary accelerometer for pulse and integrated velocity determination and a backup accelerometer. In addition, the sled was instrumented with one (1) light trap to measure velocity and four (4) airbag firing timing circuits.

The sled test vehicle contained two (2) Part 572 E 50th percentile adult male anthropomorphic test devices (dummies). The dummies were positioned in the front outboard designated seating positions according to the dummy placement procedure specified in Appendix B of the Laboratory Test Procedure. The dummies were not restrained by seat belts.

Both dummies were instrumented with head and chest accelerometers to measure longitudinal, lateral, and vertical accelerations; chest deflection potentiometers; left and right femur load cells to measure axial forces; and upper neck load cells to measure longitudinal, lateral, and vertical forces and moments.

The forty-one (41) data channels were digitally sampled at 12,500 samples per second and processed per Sections 11.7 through 11.9 of the Laboratory Test Procedure.

The sled test event was recorded by one (1) real-time motion picture camera and six (6) high-speed motion picture cameras. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera.

Test Results Summary

This FMVSS 208 compliance sled test was conducted by TRC Inc. on April 19, 2004.

The test vehicle, a 2004 Chrysler Pacifica MPV, NHTSA No. C40307, does appear to comply with the performance requirements of FMVSS 208 in the impact simulation sled test mode as measured by Hybrid III 50th percentile male dummies.

	FMVSS 208 Max. Allowable Injury Assessment Values	Driver	Passenger
HIC	1000	246	194
Chest g	60 g	30.7	39.0
Chest Displacement	3 inches	0.9	0.4
Left Femur	2250 lbs	658	1084
Right Femur	2250 lbs	500	957
Neck Extension	57 Nm	16.8	16.0
Neck Flexion	190 Nm	58.3	83.7
Neck Tension	3300 N	775	467
Neck Compression	4000 N	189	2269
Neck Shear	3100 N	1052	1460

The subject vehicle, a 2004 Chrysler Pacifica MPV, NHTSA No. C40307, appears to meet the other FMVSS 208 requirements for which it was tested. These results are shown in the data sheets that are included in this report.

The sled test vehicle was equipped with air bags at the driver and passenger seating positions. The dummies were not restrained by seat belts. The sled carriage was accelerated to 16.9 g with an integrated velocity change of 29.6 mph. The primary stages of the airbags were triggered at 20.16 milliseconds after 0.5 g acceleration was measured by the firing circuit. The secondary stages of the airbags were triggered at 25.12 milliseconds after 0.5 g

acceleration was measured by the firing circuit. Following subsequent digital data processing and filtering the acceleration signal to Channel Class 60, the primary stages airbag event trigger signal was 20.72 ms after the 0.5 g acceleration level was indicated and the secondary stages airbag event trigger signal was 25.68 ms after the 0.5 g acceleration level was indicated.

Data Acquisition Explanations

The front view driver and passenger high-speed film cameras ran slower than the requested 1000 frames/s.

Sled Test Summary

NHTSA number: C40307
Test type: Alternate 208
Test date: 04/19/04
Test time: 14:45
Ambient temperature at impact area: 69.5° F
Vehicle year/make/ model/body style: 2004/Chrysler/Pacifica/MPV

<u>Dummy Info:</u>	Driver #229	Front Passenger #230
Type:	Hybrid III 50th	Hybrid III 50th
Location:	Left Front	Right Front
Restraint:	Airbag	Airbag
Number of data channels:	15	15

Number of Cameras:

Real-time:	1
High-speed:	6

Door Opening Data:

Left Front:	Easy
Right Front:	Easy

Front Seat Data:

Seat track failure:	None	None
Seat back failure	None	None

Visible Dummy Contact Points:

Head:	Airbag, sunvisor, headliner	Airbag, sunvisor, windshield, head restraint
Chest:	Airbag	Airbag
Left knee:	Knee bolster	Glove box
Right knee:	Knee bolster	Glove box

General Test and Vehicle Parameter Data for the Sled Test Vehicle

Test Vehicle Information:

Vehicle year/make/
model/body style: 2004/Chrysler/Pacifica/MPV
Color: Silver Metallic
VIN: 2C4GM68464R624863
NHTSA number: C40307
Engine data:
Placement: Transverse
Cylinders: 6
Displacement: 3.5
Transmission data: 4 speed, manual, X automatic, X overdrive
Final drive: X fwd, rwd, 4wd
Date vehicle received: 3/8/2004
Odometer reading: 39
Dealer's name
and address: Hardin Motors Inc.
South Main Street
Mt. Victory, Ohio 43340

Major Options:

Power steering	Yes	Other: None
Power brakes	Yes	
Power windows	Yes	
Air conditioning	Yes	
Power door locks	Yes	

Remarks: None

General Test and Vehicle Parameter Data for the Sled Test Vehicle, Cont'd.

Data from Vehicle's Certification Label:

Vehicle manufactured by: DaimlerChrysler Corporation
Date of manufacture: 02-04
VIN: 2C4GM68464R624863
GVWR: 5700 lbs
GAWR: Front: 2826 lbs
Rear: 2899 lbs

Data from Vehicle's Tire Placard:

Tire pressure with maximum capacity vehicle load:

Front: 44 psi
Rear: 44 psi

Recommended tire size: P235/65R17

Load range: N/A lbs

Recommended cold tire pressure:

Front: 33 psi
Rear: 33 psi

Size of tires on vehicle: P235/65R17

Spare tire: T155/90D18

Vehicle capacity data:

Type of front seats: Bucket

Number of occupants:

Front 2
Mid 2
Rear 2
Total 6

Remarks: None

General Test and Vehicle Parameter Data for the Sled Test Vehicle, Cont'd.

Weight of test vehicle as received (with maximum fluids):

Right front	1203.7 lbs	Right rear	955.7 lbs
Left front	1266.5 lbs	Left rear	972.2 lbs
Total front weight	2470.2 lbs	(56.2% of total vehicle weight)	
Total rear weight	1927.9 lbs	(43.8% of total vehicle weight)	
Total delivered weight	4398.1 lbs		

Calculation of test vehicle's target test weight:

RCLW = Rated Cargo and Luggage Weight

UDW = Unloaded Delivered Weight (4398.1 lbs)

DSC = Designated Seating Capacity (6)

RCLW = 300.0 lbs

Target test weight = UDW + RCLW + (Number of Hybrid III dummies x 167 lbs per dummy)

Target test weight = 4398.1 + 300.0 + 334.0 = 5032.1 lbs

Weight of test vehicle with two dummies and 298.8 lbs of cargo weight:

Right front	1276.4 lbs	Right rear	1191.6 lbs
Left front	1325.0 lbs	Left rear	1237.9 lbs
Total front weight	2601.4 lbs	(52% of total vehicle weight)	
Total rear weight	2429.5 lbs	(48% of total vehicle weight)	
Total test weight	5030.9 lbs		

Remarks:

Weight of ballast secured in vehicle cargo area: None

Components removed to meet target test weight: None

General Test and Vehicle Parameter Data for the Sled Test Vehicle, Cont'd.

Test Vehicle Attitude:

As delivered door sill angle: 1.4° Nose down

As tested door sill angle: 1° Nose down

Fully loaded door sill angle: 0.5° Nose down

Vehicle Wheelbase: N/A inches

Fuel System Data:

Fuel system capacity from owner's manual: 23 gallons

Useable capacity figure furnished by COTR: 23.0 gallons

Remarks: The roll angle measurements were within 1 inch of each other.

The left and right side measurements were 33.9 inches and 33.9 inches respectively.

Post-Impact Data

Test number: S040419
NHTSA number: C40307
Test date: 04/19/04
Test time: 14:45
Test type: Alternate 208
Impact angle: 0°
Ambient temperature
at impact area: 69.5° F
Temperature in
occupant compartment: 69.5° F

Sled carriage velocity:

Integrated velocity from the integration of the entire sled acceleration: 29.6 mph
Measured velocity from the light trap device attached to the sled (backup): 29.0 mph
Specified integrated velocity range: 28 to 30 mph

Sled carriage acceleration:

Acceleration: 16.9 g
Specified acceleration range: 16.0 g - 18.2 g

Sled carriage acceleration duration:

Time from T-0(-0.5 g) to 0.0 g: 126.0 ms
Specified acceleration duration: 120 - 130 ms

The sled acceleration curve was within the specified corridor.

Seat and Steering Column Positioning Data

Vehicle: 2004/Chrysler/Pacifica/MPV

NHTSA No.: C40307

Nominal Design Riding Position:

Driver Seat: Seat Back Angle = 20.9°

Passenger Seat: Seat Back Angle = 20.1°

Seat Fore and Aft Positions:

Driver Seat: Set to the middle of the available fore/aft travel

Passenger: Set to the middle of the available fore/aft travel

Steering Column Adjustments:

Set to 9° down from highest locked position. Total range for vehicle is 20°.

Dummy Measurement Data for Front Seat Occupants

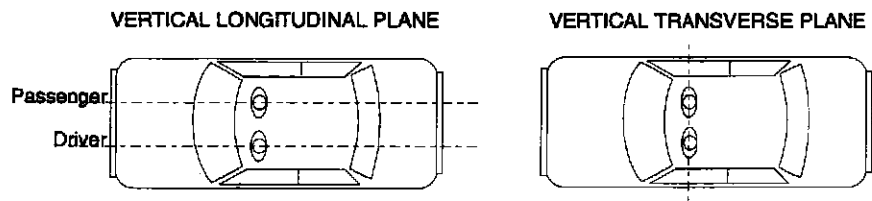
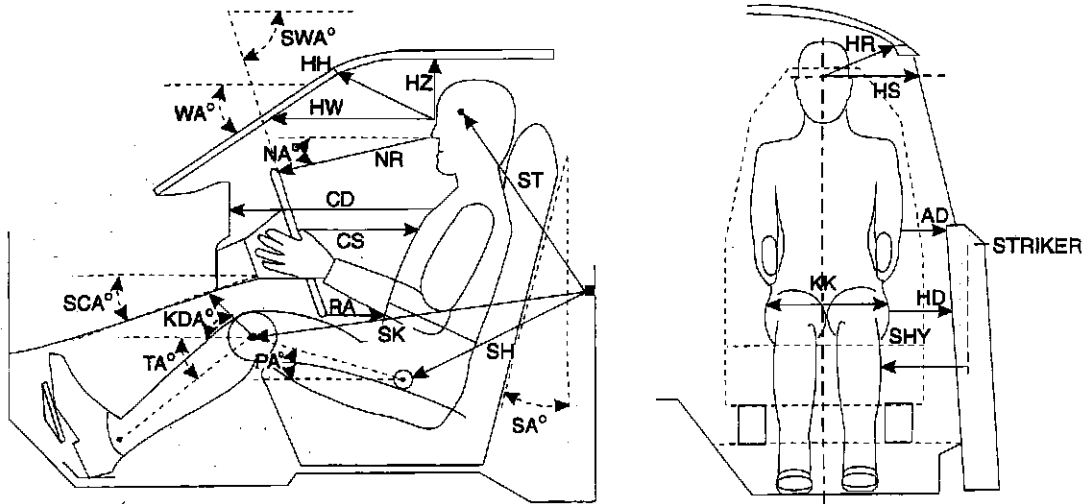
Designation	Type of Measurement	Driver (Serial #229)	Passenger (Serial #230)
WA	Windshield angle	27.8°	N/A
SWA	Steering wheel angle	67.7°	N/A
SCA	Steering column angle	22.3°	N/A
SA	Seat back angle	20.9°	20.1°
HZ	Head to roof	9.4 in	7.8 in
HH	Head to header	14.3 in	14.4 in
HW	Head to windshield	25.4 in	24.4 in
HR	Head to side header	9.1 in	7.9 in
NR	Nose to rim	15.7 in	N/A
NA	Nose to rim angle	7.7°	N/A
CD	Chest to dash	19.8 in	21.6 in
CS	Steering wheel to chest	12.8 in	N/A
RA	Rim to abdomen	6.9 in	N/A
KDL	Left knee to dash	6.3 in	5.7 in
KDR	Right knee to dash	5.7 in	7.1 in
KDA	Outboard knee to dash angle	47.0°	27.3°
PA	Pelvis angle	24.3°	22.6°
TA	Tibia angle	48.9°	42.0°
KK	Knee to knee	10.6 in	10.6 in
ST ¹	Striker to head	22.8 in	23.8 in
	Striker to head angle	78.1°	84.7°
SK ¹	Striker to knee	2.6 in	25.4 in
	Striker to knee angle	0.5°	-0.5°
SH ¹	Striker to H-point	10.2 in	9.2 in
	Striker to H-point angle	26.2°	15.1°
SHY	Striker to H-point (Y dir.)	11.0 in	11.0 in
HS	Head to side window	15.0 in	14.0 in
HD	H-point to door	4.9 in	4.4 in
AD	Arm to door	6.9 in	6.0 in

The seat back angle (SA°) is measured relative to vertical.

All other angles are measured relative to horizontal.

¹ A negative angle indicates the measurement point was located below the striker.

Dummy Measurement Locations for Front Seat Occupants



Descriptions of Dummy Measurements

When a level is to be used, it is to ensure that the line containing the two points described is either parallel or perpendicular to the ground. If a measurement to be made is less than 10 inches ignore the directions to use a level and approximate a level measurement. Also, when a measurement is to be taken to or from the center of a bolt on the dummy, take the measurement from the center of the bolt hole if the bolt is recessed.

The following measurements are to be made within a vertical longitudinal plane.

- * HH Head to Header, taken from the point where the dummy's nose meets his forehead (between his eyes) to the furthest point forward on the header.
- * HW Head to Windshield, taken from the point where the dummy's nose meets his forehead (between his eyes) to a point on the windshield. Use a level.
- HZ Head to Roof, taken from the point where the dummy's nose meets his forehead (between his eyes) to the point on the roof directly above it. Use a level.
- * CS Steering Wheel to Chest, taken from the center of the steering wheel hub to the dummy's chest. Use a level.
- * CD Chest to Dash, place a tape measure on the tip of the dummy's chin and rotate five inches of it downward toward the dummy to the point of contact on the transverse center of the dummy's chest. Then measure from this point to the closest point on the dashboard either between the upper part of the steering wheel between the hub and the rim, or measure to the dashboard placing the tape measure above the rim, whichever is a shorter measurement. See diagram.
- RA Steering Wheel Rim to Abdomen, taken from the bottommost point of the steering wheel rim horizontally rearward to the dummy. Use a level.
- NR Nose to Rim, taken from the tip of the dummy's nose to the closest point on the top of the steering wheel rim. Also indicate the angle this line makes with respect to the horizontal (NA).

* Measurement used in Data Tape Reference Guide

Descriptions of Dummy Measurements, Cont'd.

- *¹ KDL,
KDR Left and Right Knees to Dashboard, taken from the center of the knee pivot bolt's outer surface to the closest point forward acquired by swinging the tape measure in continually larger arcs until it contacts the dashboard. Also reference the angle of this measurement with respect to the horizontal for the outboard knee (KDA). See diagram.
- SH,
SK,
ST Striker to Hip, Knee, and Head, these measurements are to be taken in the X-Z plane measured from the forward most center point on the striker to the center of the H-point, outer knee bolt, and head target. When taking this measurement a firm device that can be rigidly connected to the striker should be used. Use a level. The angles of these measurements with respect to the horizontal should also be recorded. The measurement in the Y (transverse) direction from the striker to the H-point should also be taken (SHY). See diagram.

The following measurements are to be made within a vertical transverse plane.

- HS Head to Side Window, taken from the point where the dummy's nose meets his forehead (between his eyes) to the outside of the side window. In order to make this measurement, roll the window down to the exact height which allows a level measurement. Use a level. See diagram.
- * AD Arm to Door, taken from the outer surface of the elbow pivot bolt on a Hybrid II dummy to the first point it hits on the door. In the case of a Hybrid III dummy, measure from the bolt on the outer biceps. When a SID is used make the measurement from the center of the bottom of the arm segment where it meets the dummy's torso.
- * HD H-point to Door, taken from the H-point on the dummy to the closest point on the door. Use a level.
- * HR Head to Side Header, measure the shortest distance from the point where the dummy's nose meets his forehead (between his eyes) to the side edge of the header just above the window frame, directly adjacent to the dummy.

* Measurement used in Data Tape Reference Guide

¹ Only outboard measurement is referenced in Data Tape Reference Guide

Descriptions of Dummy Measurements, Cont'd.

SHY Striker to H-point, taken from a rod rigidly connected to the forward most center point on the striker to the H-point. Use a level. See diagram.

KK Knee to Knee, for Hybrid II dummies measure the distance between knee pivot bolt head outer surfaces. For Hybrid III dummies measure the distance between the outboard knee clevis flange surfaces. (This measurement may not be exactly transverse.)

Angles

SA Seat Back Angle, find this angle using the instructions provided by the manufacturer. If the manufacturer doesn't provide clear instructions contact the COTR.

PA Pelvis or Femur Angle, taken by inserting the pelvic angle gauge into the H-point gauging hole on the SID or the Hybrid III dummies and taking this angle with respect to the horizontal. Measure the angle of the line connecting the H-point hole and the outer knee pivot bolt hole on a Hybrid II dummy with respect to the horizontal, to find the femur angle.

SWA Steering Wheel Angle, find this by placing a straight edge against the steering wheel rim along the longitudinal plane. Then measure the acute angle of the straight edge with respect to the horizontal.

SCA Steering Column Angle, measured with respect to the horizontal by placing an inclinometer on the center of the underside of the steering column.

NA Measure the angle made when taking the measurement NR with respect to the horizontal.

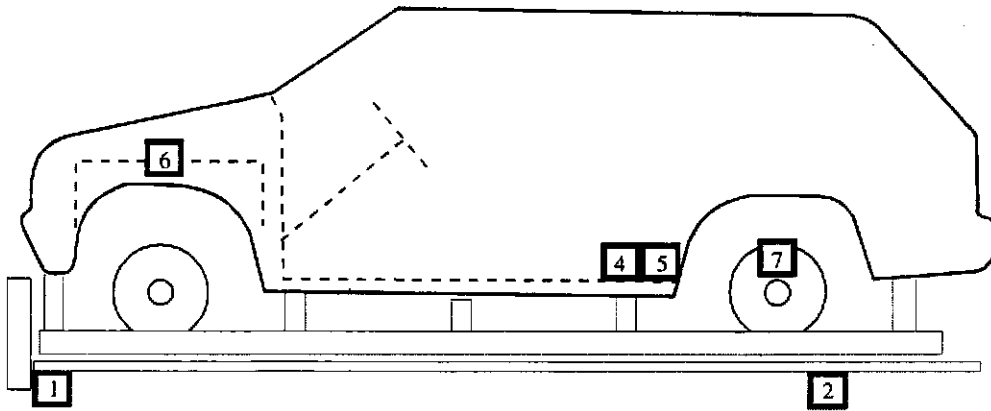
KDA Knee to Dash Angle, the angle that the measurement KD is taken at with respect to the horizontal. Only get this angle for the outboard knee. See diagram.

WA Windshield Angle, place an inclinometer along the transverse center of the windshield exterior (measurement is made with respect to horizontal).

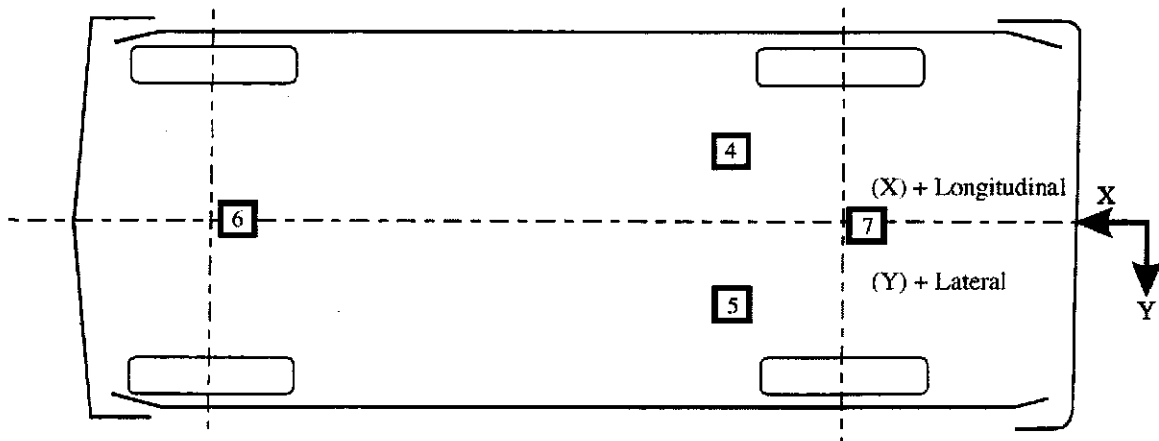
TA Tibia Angle, use a straight edge to connect the dummy's knee and ankle bolts. Then place an inclinometer on the straight edge and measure the angle with respect to the horizontal.

* Measurement used in Data Tape Reference Guide

Vehicle Accelerometer Placement



Side View



Bottom View

Vehicle Data Summary and Accelerometer Locations

TEST NUMBER: S040419

No. LOCATION

	X	Y	Z	POSITIVE DIRECTION ¹	NEGATIVE DIRECTION ¹
1 SLED ACCELERATION PRIMARY	165.6 in	-1.0 in	NA	0.6 g @ 155.1 ms	16.9 g @ 56.4 ms
2 SLED ACCELERATION BACKUP REDUNDANT	165.6 in	-1.0 in	NA	0.7 g @ 149.0 ms	17.0 g @ 56.9 ms
3 SLED VELOCITY MEASURED INTEGRATED ²	NA	NA	NA	0.0 mph @ 9.8 ms --- 29.5 mph @ 145.9 ms	29.0 mph @ 145.2 ms 29.5 mph @ 145.9 ms
4 LEFT BODY AT REAR SEAT LONGITUDINAL	56.9 in	-17.3 in	NA	2.0 g @ 131.4 ms	17.8 g @ 59.8 ms
5 RIGHT BODY AT REAR SEAT LONGITUDINAL	56.1 in	17.3 in	NA	1.9 g @ 131.4 ms	17.8 g @ 60.4 ms
6 TOP ENGINE LONGITUDINAL	175.4 in	1.2 in	NA	6.3 g @ 136.6 ms	19.1 g @ 51.4 ms
7 REAR AXLE LONGITUDINAL	38.0 in	0.0 in	NA	2.7 g @ 131.0 ms	18.3 g @ 59.4 ms
8 DRIVER PRIMARY AIRBAG EVENT	NA	NA	NA	1.0 volt @ 20.7 ms	---

Vehicle Data Summary and Accelerometer Locations, Cont'd.

TEST NUMBER: S040419 No. LOCATION	X	Y	Z	POSITIVE DIRECTION ¹	NEGATIVE DIRECTION ¹
9 DRIVER SECONDARY AIRBAG EVENT	NA	NA	NA	1.0 volt @ 25.7 ms	---
10 PASSENGER PRIMARY AIRBAG EVENT	NA	NA	NA	1.0 volt @ 20.7 ms	---
11 PASSENGER SECONDARY AIRBAG EVENT	NA	NA	NA	1.0 volt @ 25.7 ms	---
12 DRIVER KNEE BOLSTER AIRBAG EVENT	NA	NA	NA	1.0 volt @ 20.7 ms	---

20

REFERENCE: X: + FORWARD FROM VEHICLE REAR SURFACE
Y: + RIGHTWARD FROM SLED CARRIAGE CENTERLINE

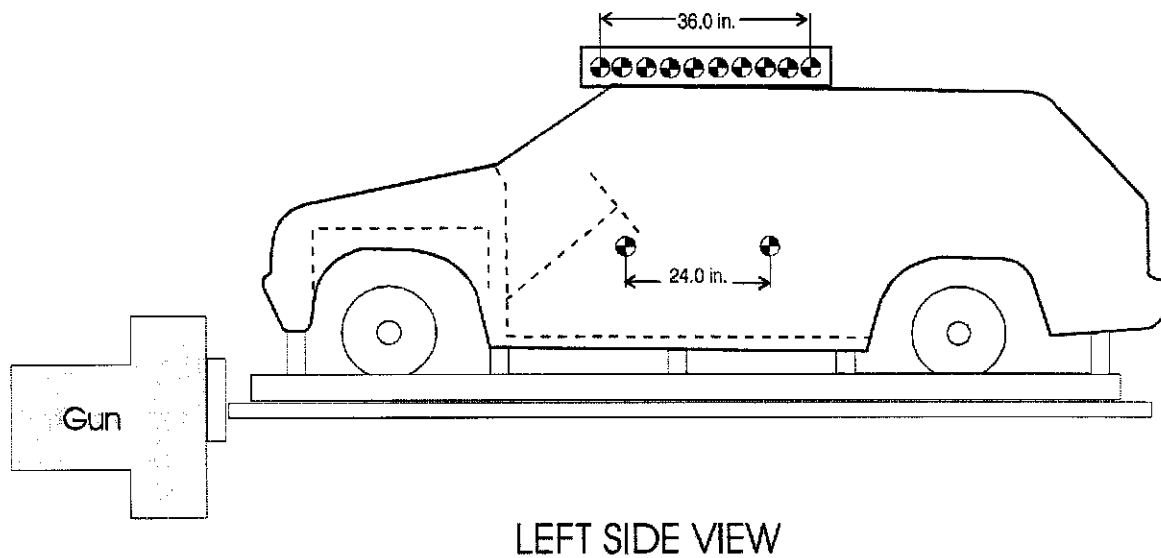
¹ Sign convention per SAEJ211 March 1995.

² No positive data in time frame of interest.

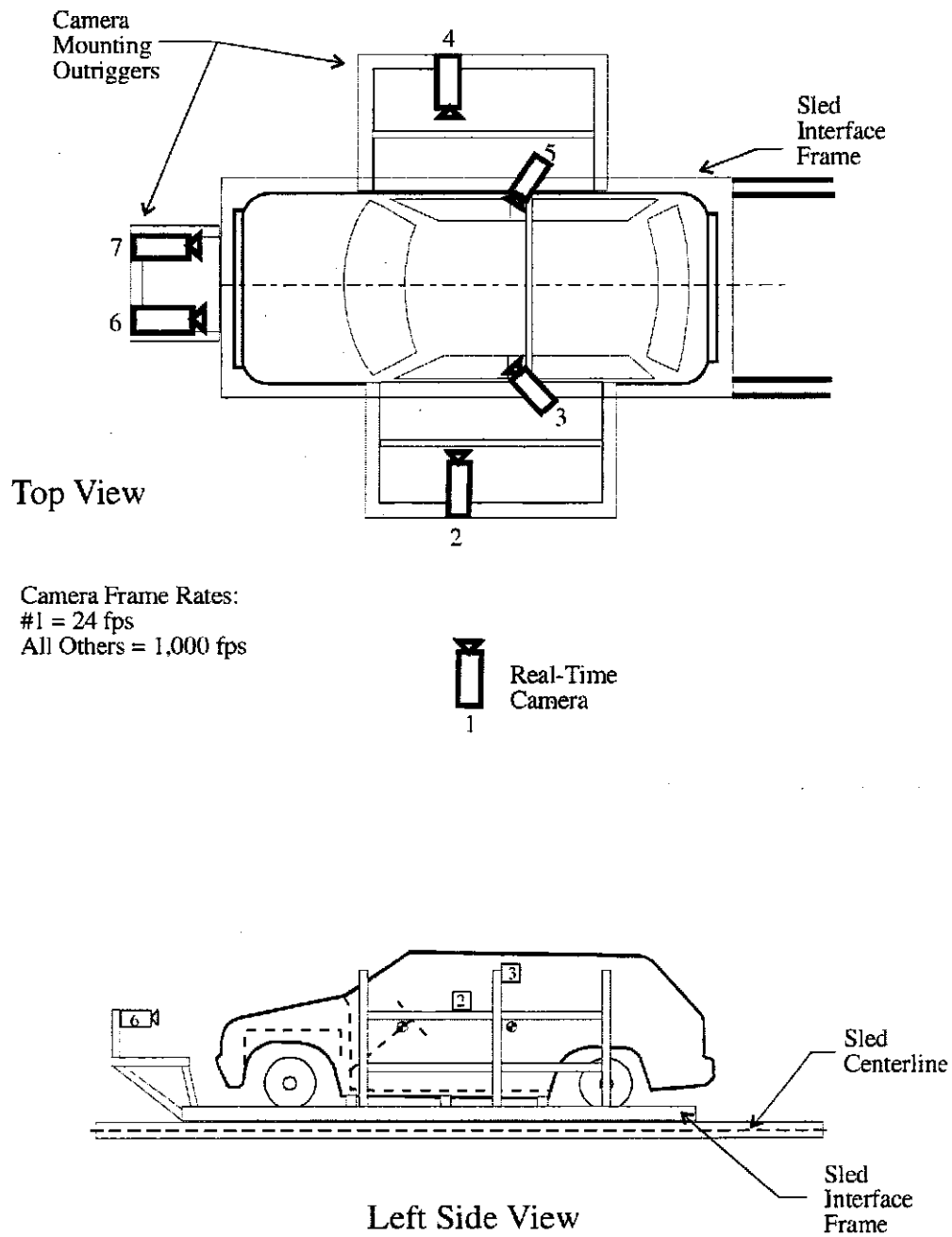
S040419

Vehicle Targeting Measurements

REFERENCE PHOTO TARGETS



Camera Positions



Motion Picture Camera Locations

Vehicle year/make/model/body style: 2004/Chrysler/Pacifica/MPV

NHTSA No.: C40307

Test Number: S040419

Camera Number	View	Camera Positions ¹			Camera Angle ²	Film Plane to Head Target	Camera Lens	Film Speed
		X	Y	Z				
1	Pre- and Post-Test panning and documentary	94.2 in	304.4 in	47.0 in	-1.1°	287.0 in	6.7 mm	30 frames/s
2	Left side view wide	75.0 in	73.1 in	61.1 in	5.2°	54.5 in	13 mm	1000 frames/s
3	Left side view over shoulder	97.8 in	48.6 in	62.9 in	14.8°	34.5 in	8 mm	1150 frames/s
4	Right side view wide	77.2 in	73.0 in	60.6 in	3.0°	55.7 in	13 mm	1000 frames/s
5	Right side view over shoulder	99.4 in	48.8 in	61.2 in	12.5°	34.1 in	8 mm	1027 frames/s
6	Front view - driver	28.7 in	14.6 in	59.4 in	8.7°	53.5 in	8 mm	--- ³ frames/s
7	Front view - passenger	29.2 in	16.2 in	60.2 in	4.4°	52.8 in	8 mm	210 ⁴ frames/s

¹ X: Film plane to front of sled

Y: Film plane to sled centerline

Z: Film plane to top of sled

² Angle: Film plane of camera downward from horizontal plane

³ Camera ran too slow to time.

⁴ Camera ran slower than 1,000 frames/s desired film speed.

FMVSS 208 Occupant Injury Data

Vehicle: 2004/Chrysler/Pacifica/MPV

NHTSA No.: C40307 Date:04/19/04

Maximum Acceleration Values: (g)	Driver Dummy #229	Passenger Dummy #230
Head Channel X	-60.4	-51.3
Head Channel Y	6.8	-24.5
Head Channel Z	-28.9	30.8
HEAD RESULTANT	60.7	61.2
Chest Channel X	-29.9	-36.2
Chest Channel Y	-3.3	3.8
Chest Channel Z	12.4	19.0
CHEST RESULTANT	31.8	39.5

Head Injury Criteria (HIC) Values:

HIC	246	194
t_1 = (ms)	114.40	92.16
t_2 = (ms)	129.84	119.52

The maximum HIC time interval from t_1 to t_2 is 36 milliseconds.

Chest Injury Criteria (Clip) Values:

CLIP (g)	30.7	39.0
t_1 = (ms)	90.59	107.65
t_2 = (ms)	93.55	110.61
Chest Deflection (in)	0.9	0.4

FMVSS 208 Occupant Injury Data, Cont'd.

Vehicle: 2004/Chrysler/Pacifica/MPV

NHTSA No.: C40307 Date:04/19/04

Max. Compressive Femur Forces:	Driver Dummy #229	Passenger Dummy #230
Left Side (lbs)	657	1084
Right Side (lbs)	499	957

Neck Injury Criteria:	Driver Dummy #229	Passenger Dummy #230
Peak Flexion Bending Moment (N-m)	58.3	83.7
Peak Extension Bending Moment (N-m)	16.8	16.0
Peak Axial Tension (N)	775	467
Peak Axial Compression (N)	189	2269
Peak Positive X-axis Shear (N)	1052	1460
Peak Negative X-axis Shear (N)	208	334

DATA SHEET 3
Certification Label and Tire Placard Information

NHTSA No. C40307

Test Date: 03/30/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

1. Certification Label

Manufacturer DaimlerChrysler Corporation

Date of Manufacture 02/04

VIN 2C4GM68464R624863

Vehicle certified as: ☐ Passenger car ☒ MPV ☐ Truck ☐ Bus

Front axle GVWR 2826 lbs

Rear axle GVWR 2899 lbs

Total GVWR 5700 lbs

2. Tire Placard

☐ N/A – Vehicle is not a passenger car and does not have a tire placard.

☒ This is not a passenger car (see the item 1 above), but all or part of this information is still contained on a vehicle label and is reported here.

Vehicle Capacity Weight 1302.9 lbs

Designated seating capacity front 2

Designated seating capacity rear 2

Total Designated seating capacity 6

Recommended cold tire inflation pressure front 33 psi

Recommended cold tire inflation pressure rear 33 psi

Recommended tire size P235/65R17

DATA SHEET 4
REAR OUTBOARD SEATING POSITION SEAT BELTS

NHTSA No. C40307

Test Date: 03/30/04

Laboratory: TRC Inc.

Test Technician(s): Ronald Stoner, Michael S. Postle

Do all rear outboard seating positions have type 2 seat belts? Yes X; No _____

If NO, describe the seat belt installed, the seat location, and any other information about the seat that would explain why a type 2 seat belt was not installed.

REMARKS:

DATA SHEET 5

AIR BAG LABELS (S4.5.1)

NHTSA No. C40307

Test Date: 03/30/04

Laboratory: TRC Inc.

Test Technician(s): Ronald Stoner, Michael S. Postle

1. Air Bag Maintenance Label and Owner's Manual Instructions: (S4.5.1(a))
 - 1.1 Does the manufacturer recommend periodic maintenance or replacement of the air bag?
☐ Yes (Go to 1.2); ☒ No (Go to 2)
 - 1.2 Does the vehicle have a label specifying air bag maintenance or replacement?
☐ Yes-Pass; ☒ No-FAIL
 - 1.3 Does the label contain one of the following?
☐ Yes-Pass; ☒ No-FAIL
Check applicable schedule
☐ Schedule on label specifies month and year (Record date _____)
☐ Schedule on label specifies vehicle mileage (Record mileage _____)
☐ Schedule on label specifies interval measured from date on certification label
(Record interval _____)
 - 1.4 Is the label permanently affixed within the passenger compartment such that it cannot be removed without destroying or defacing the label or the survivor?
☐ Yes-Pass; ☒ No-FAIL
 - 1.5 Is the label lettered in English?
☐ Yes-Pass; ☒ No-FAIL
 - 1.6 Is the label in block capitals and numerals?
☐ Yes-Pass; ☒ No-FAIL
 - 1.7 Are the letters and numerals at least 3/32 inches high?
_____ height of letters and numerals
☐ Yes-Pass; ☒ No-FAIL
 - 1.8 Does the owner's manual set forth the recommended schedule for maintenance or replacement? ☐ Yes-Pass ☒ No-FAIL
2. Does the owner's manual: (S4.5.1(f))
 - 2.1 Include a description of the vehicle's air bag system in an easily understandable format?
☒ Yes-Pass; ☒ No-FAIL
 - 2.2 Include a statement that the vehicle is equipped with an air bag and a lap/shoulder belt at the front outboard seating positions?
☒ Yes-Pass; ☒ No-FAIL
 - 2.3 Include a statement that the air bag is a supplemental restraint at the front outboard seating positions?
☒ Yes-Pass; ☒ No-FAIL
 - 2.4 Emphasize that all occupants, including the driver, should always wear their seat belts whether or not an air bag is also provided at their seating positions to minimize the risk of severe injury or death in the event of a crash?
☒ Yes-Pass; ☒ No-FAIL
 - 2.5 Provide any necessary precautions regarding the proper positioning of occupants, including children, at seating positions equipped with air bags to ensure maximum safety protection for those occupants?
☒ Yes-Pass; ☒ No-FAIL
 - 2.6 Explain that no objects should be placed over or near the air bag on the steering wheel or on the instrument panel, because any such objects could cause harm if the vehicle is in a crash severe enough to cause the air bag to inflate?
☒ Yes-Pass; ☒ No-FAIL

- 2.7 Is the vehicle certified to meet the requirements of S14.5, S15, S17, S19, S21, S23, and S25? **(Obtain the answer to this question from the COTR.)** (S4.5.1(f)(2))
☒ Yes (go to 2.7.1); ☐ No (go to 3)
- 2.7.1 Explain the proper functioning of the advanced air bag system? (S4.5.1(f)(2))
☒ Yes-Pass; ☐ **No-FAIL**
- 2.7.2 Provide a summary of the actions that may affect the proper functioning of the system? (S4.5.1(f)(2))
☒ Yes-Pass; ☐ **No-FAIL**
- 2.7.3 Present and explain the main components of the advanced passenger air bag system? (S4.5.1(f)(2)(i))
☒ Yes-Pass; ☐ **No-FAIL**
- 2.7.4 Explain how the components function together as part of the advanced passenger air bag system? (S4.5.1(f)(2)(ii))
☒ Yes-Pass; ☐ **No-FAIL**
- 2.7.5 Contain the basic requirements for proper operation, including an explanation of the actions that may affect the proper functioning of the system? (S4.5.1(f)(2)(iii))
☒ Yes-Pass; ☐ **No-FAIL**
- 2.7.6 Is the vehicle certified to the requirements of S19.2, S21.2 or S23.2 (automatic suppression)?
☐ Yes, continue with 2.7.6
☒ No, go to 2.7.7
- 2.7.6.1 Contain a complete description of the passenger air bag suppression system installed in the vehicle, including a discussion of any suppression zone? (S4.5.1(f)(2)(iv))
☐ Yes-Pass; ☐ **No-FAIL**
- 2.7.6.2 Discuss the telltale light, specifying its location in the vehicle and explaining when the light is illuminated?
☐ Yes-Pass; ☐ **No-FAIL**
- 2.7.7 Explain the interaction of the advanced passenger air bag system with other vehicle components, such as seat belts, seats or other components? (S4.5.1(f)(2)(v))
☒ Yes-Pass; ☐ **No-FAIL**
- 2.7.8 Summarize the expected outcomes when child restraint systems, children and small teenagers or adults are both properly and improperly positioned in the passenger seat, including cautionary advice against improper placement of child restraint systems? (S4.5.1(f)(2)(vi))
☒ Yes-Pass; ☐ **No-FAIL**
- 2.7.9 Provide information on how to contact the vehicle manufacturer concerning modifications for persons with disabilities that may affect the advanced air bag system? (S4.5.1(f)(2)(vii))
☒ Yes-Pass; ☐ **No-FAIL**
3. Sun Visor Air Bag Warning Label (S4.5.1(b)) Check only one of the following:
☒ The vehicle is not certified to meet the requirements of S19, S21, and S23. **(Obtain the answer to this question from the COTR.)** (S4.5.1(b)(1)) Go to 3.1 and skip 3.2 and 3.3
☐ The vehicle is certified to meet the requirements of S19, S21, and S23 before 9/1/03. **(Obtain the answer to this question from the COTR.)** (S4.5.1(b)(2)) Go to 3.2 and skip 3.1 and 3.3
☐ The vehicle is certified to meet the requirements of S19, S21, and S23 on 9/1/03 or later. **(Obtain the answer to this question from the COTR.)** (S4.5.1(b)(3)) Go to 3.3 and skip 3.1 and 3.2
- 3.1 Vehicles not certified to meet the requirements of S19, S21, and S23.

- 3.1.1 Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing it? (S4.5.1(b)(1))
 Driver side ☒ Yes-Pass ☐ No-FAIL
 Passenger side ☒ Yes-Pass ☐ No-FAIL
- 3.1.2 Does the label conform in content to the label shown in either Figure 6a or 6b (Figure 6b is for vehicles with passenger air bag on-off switches), as appropriate, at each front outboard seating position? (S4.5.1 (b)(1)) **(Vehicles without back seats may omit the statement: "The BACK SEAT is the SAFEST place for children." (S4.5.1(b)(1)(iv)))**
 Driver side ☒ Yes-Pass ☐ No-FAIL
 Passenger side ☒ Yes-Pass ☐ No-FAIL
- 3.1.3 Is the label heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1 (b)(1)(i))
 Driver side ☒ Yes-Pass ☐ No-FAIL
 Passenger side ☒ Yes-Pass ☐ No-FAIL
- 3.1.4 Is the message area white with black text? (S4.5.1 (b)(1)(ii))
 Driver side ☒ Yes-Pass ☐ No-FAIL
 Passenger side ☒ Yes-Pass ☐ No-FAIL
- 3.1.5 Is the message area at least 30 cm²? (S4.5.1 (b)(1)(iii))
 Driver side: Length 8.0, Width 4.2
 Passenger side: Length 8.0, Width 4.2
 Actual message area 34 cm²
 Driver side ☒ Yes-Pass ☐ No-FAIL
 Passenger side ☒ Yes-Pass ☐ No-FAIL
- 3.1.6 Is the pictogram black with a red circle and slash on a white background? (S4.5.1(b)(2)(iii))
 Driver side ☒ Yes-Pass ☐ No-FAIL
 Passenger side ☒ Yes-Pass ☐ No-FAIL
- 3.1.7 Is the pictogram at least 30 mm in diameter? (S4.5.1 (b)(2)(iii))
 Actual diameter 31 mm
 Driver side ☒ Yes-Pass ☐ No-FAIL
 Passenger side ☒ Yes-Pass ☐ No-FAIL
- 3.2 Vehicles certified to meet the requirements of S19, S21, and S23 before 9/1/03. (S4.5.1(b)(2))
- 3.2.1 Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (S4.5.1 (b)(2))
 Driver side ☐ Yes-Pass ☐ No-FAIL
 Passenger side ☐ Yes-Pass ☐ No-FAIL
- 3.2.2 Does the label conform in content to the label shown in Figure 8 or Figure 11 at each front outboard seating position? (S4.5.1(b)(2)) **(Vehicles without back seats may omit the statement: "The BACK SEAT is the SAFEST place for children." (S4.5.1(b)(2)(iv)) Vehicles without back seats or the back seat is too small to accommodate a rear-facing child restraint may omit the statement "Never put a rear-facing child seat in the front." (S4.5.1(b)(2)(v)))**
 Driver side ☐ Yes-Pass ☐ No-FAIL
 Passenger side ☐ Yes-Pass ☐ No-FAIL
- 3.2.3 Is the label heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1 (b)(2)(i))
 Driver side ☐ Yes-Pass ☐ No-FAIL
 Passenger side ☐ Yes-Pass ☐ No-FAIL
- 3.2.4 Is the message area white with black text? (S4.5.1(b)(2)(ii))
 Driver side ☐ Yes-Pass ☐ No-FAIL
 Passenger side ☐ Yes-Pass ☐ No-FAIL

- 3.2.5 Is the message area at least 30 cm²? (S4.5.1(b)(2)(ii))
 Driver side: Length _____, Width _____
 Passenger side: Length _____, Width _____
 Driver actual message area _____ cm²
 Passenger actual message area _____ cm²
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 3.2.6 Is the pictogram black on a white background? (S4.5.1(b)(2)(iii))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 3.2.7 Is the pictogram at least 30 mm (1.2 in) in length? (S4.5.1(b)(2)(iii))
 Driver side: Length _____
 Passenger side: Length _____
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 3.3 Vehicles certified to meet the requirements of S19, S21, and S23 on 9/1/03 and later. (S4.5.1(b)(3))
- 3.3.1 Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (S4.5.1 (b)(3))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 3.3.2 Does the label conform in content to the label shown in Figure 11 at each front outboard seating position? (S4.5.1(b)(2)) **(Vehicles without back seats may omit the statement: "The BACK SEAT is the SAFEST place for children." (S4.5.1(b)(3)(iv)) Vehicles without back seats or the back seat is too small to accommodate a rear-facing child restraint may omit the statement "Never put a rear-facing child seat in the front." (S4.5.1(b)(3)(v)))**
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 3.3.3 Is the label heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1 (b)(3)(i))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 3.3.4 Is the message area white with black text? (S4.5.1(b)(3)(ii))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 3.3.5 Is the message area at least 30 cm²? (S4.5.1(b)(3)(ii))
 Driver side: Length _____, Width _____
 Passenger side: Length _____, Width _____
 Driver actual message area _____ cm²
 Passenger actual message area _____ cm²
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 3.3.6 Is the pictogram black on a white background? (S4.5.1(b)(3)(iii))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 3.3.7 Is the pictogram at least 30 mm in length? (S4.5.1(b)(3)(iii))
 Driver side: Length _____
 Passenger side: Length _____
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**

- 3.4 Is the same side of the sun visor that contains the air bag warning label free of other information with the exception of the air bag maintenance label and/or the rollover-warning label? (S4.5.1 (b)(5)(i))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 3.5 Is the sun visor free of other information about air bags or the need to wear seat belts with the exception of the air bag alert label and/or the rollover-warning label? (S4.5.1(b)(5)(ii))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 3.6.1 Does the driver side visor contain a rollover-warning label on the same side of the visor as the air bag warning label?
☐ Yes (go to 3.6.1); ☐ No (go to 4., skipping 3.6.1 through 3.6.3)
- 3.6.1 Are both the rollover-warning label and the air bag warning label surrounded by a continuous solid-lined border?
☐ Yes (go to 3.6.2 and skip 3.6.3); ☐ No (go to 3.6.3 and skip 3.6.2.)
- 3.6.2 Is the shortest distance from the border of the rollover label to the border of the air bag warning label at least 1 cm? (575.105 (d)(1)(iv)(B))
 _____ actual distance
☐ Yes-Pass ☐ **No-FAIL**
- 3.6.3 Is the shortest distance from any of the lettering or graphics on the rollover-warning label to any of the lettering or graphics of the air bag warning label at least 3 cm? (575.105(d)(1)(iv)(A))
 _____ actual distance
☐ Yes-Pass ☐ **No-FAIL**
4. Air Bag Alert Label (S4.5.1(c)) (A "Rollover Warning Label" or "Rollover Alert Label" may be on the same side of the driver's sun visor as the "Air Bag Alert Label." 575.105(d))
- 4.1 Is the Sun Visor Warning Label visible when the sun visor is in the stowed position?
 Driver side ☒ Yes ☐ No
 Passenger side ☒ Yes ☐ No
If yes, for driver and passenger go to 5.
- 4.2 Is the air bag alert label permanently affixed (including permanent marking on the visor material or molding into the visor material) to the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (S4.5.1(c))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 4.3 Is the air bag alert label visible when the visor is in the stowed position? (S4.5.1(c))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 4.4 Does the label conform in content to the label shown in Figure 6c? (S4.5.1(c))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 4.5 Is the message area black with yellow text? (S4.5.1(c)(1))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 4.6 Is the message area at least 20 cm²? (S4.5.1(c)(1))
 Driver side: Length _____, Width _____
 Passenger side: Length _____, Width _____
 Actual message area _____ cm²
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**
- 4.7 Is the pictogram black with a red circle and slash on a white background? (S4.5.1(c)(2))
 Driver side ☐ Yes-Pass ☐ **No-FAIL**
 Passenger side ☐ Yes-Pass ☐ **No-FAIL**

- 4.8 Is the pictogram at least 20 mm in diameter? (S4.5.1(c)(2))
 Driver side: diameter _____
 Passenger side: diameter _____
 Driver side ☐ Yes-Pass ☒ **No-FAIL**
 Passenger side ☐ Yes-Pass ☒ **No-FAIL**
5. Label On the Dashboard
- 5.1 Is the vehicle certified to meet the requirements of S19, S21, and S23? (**Obtain the answer to this question from the COTR.**) (S4.5.1(e)(2))
☐ Yes (go to 5.1.1 and skip 5.2)
☒ **No** (go to 5.2, skipping 5.1.1 through 5.1.6)
- 5.1.1 Does the vehicle have a label on the dash or steering wheel hub? (S4.5.1(e)(2))
☐ Yes-Pass ☒ **No-FAIL**
- 5.1.2 Is the label clearly visible from all front seating positions? (S4.5.1(e)(2))
☐ Yes-Pass ☒ **No-FAIL**
- 5.1.3 Does the label conform in content to the label shown in Figure 9? (S4.5.1(e)(2))
(Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(e)(2)(iii)))
☐ Yes-Pass; ☒ **No-Fail**
- 5.1.4 Is the heading area yellow with black text? (S4.5.1(e)(2)(i))
☐ Yes-Pass; ☒ **No-FAIL**
- 5.1.5 Is the message white with black text? (S4.5.1(e)(2)(ii))
☐ Yes-Pass; ☒ **No-FAIL**
- 5.1.6 Is the message area at least 30 cm²? (S4.5.1(e)(2)(ii))
 Length _____, Width _____
 Actual message area _____ cm²
☐ Yes-Pass; ☒ **No-FAIL**
- 5.2 Does the vehicle have a label on the dash or steering wheel hub? (S4.5.1(e)(1))
☒ Yes-Pass ☐ **No-FAIL**
- 5.2.1 Is the label clearly visible from all front seating positions? (S4.5.1(e)(1))
☒ Yes-Pass ☐ **No-FAIL**
- 5.2.2 Does the label conform in content to the label shown in Figure 7? (S4.5.1 (e)(1)(iii))
(Vehicles without back seats may omit the statement: "The back seat is the safest place for children 12 and under." (S4.5.1(e)(2)(iii)))
☒ Yes-Pass; ☐ **No-Fail**
- 5.2.3 Is the heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1 (e)(1)(i))
☒ Yes-Pass; ☐ **No-FAIL**
- 5.2.4 Is the message white with black text? (S4.5.1(e)(1)(ii))
☒ Yes-Pass; ☐ **No-FAIL**
- 5.2.5 Is the message area at least 30 cm²? (S4.5.1(e)(1)(ii))
 Length 9.4, Width 3.5
 Actual message area 33 cm²
☒ Yes-Pass; ☐ **No-FAIL**

Label Outline, Vertical and Horizontal Line Black

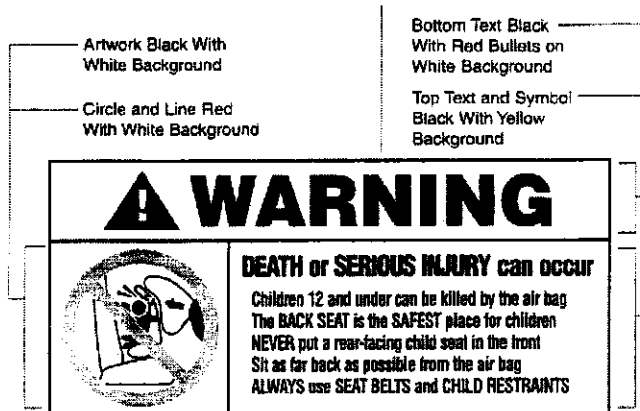


Figure 6a. Sun Visor Label Visible When Visor is in Down Position.

Label Outline, Vertical and Horizontal Line Black

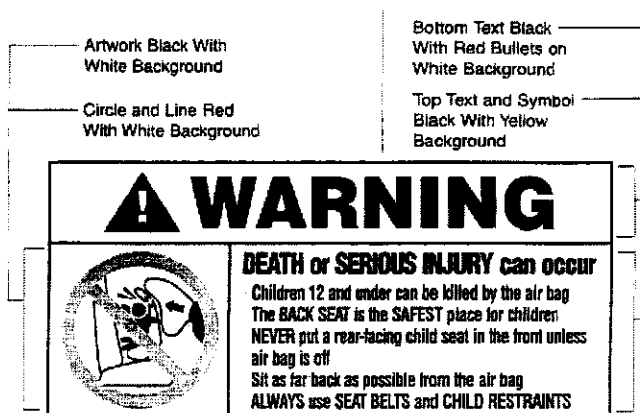


Figure 6b. Sun Visor Label Visible When Visor is in Down Position.

Circle and Line Red
With White Background

Text Yellow With
Black Background

Artwork Black With
White Background



Figure 6c. Sun Visor Label Visible When Visor is in Up Position.

Label Outline and Horizontal Line Black

Bottom Text Black
With White
Background

Top Text and Symbol
Black With Yellow
Background



Figure 7. Removable Label on Dash.

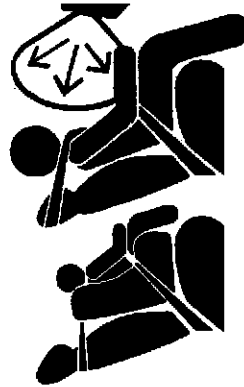
Label Outline, Vertical and Horizontal Lines Black

Bottom Text and Artwork Black with
White Background

Top Text Black with
Yellow Background

! WARNING

EVEN WITH ADVANCED AIR BAGS



- Children can be killed or seriously injured by the air bag
- The back seat is the safest place for children
- Always use seat belts and child restraints
- See owner's manual for more information about air bags

Figure 8. Sun Visor Label Visible when Visor
is in Down Position.

Label Outline, Vertical and Horizontal Lines Black

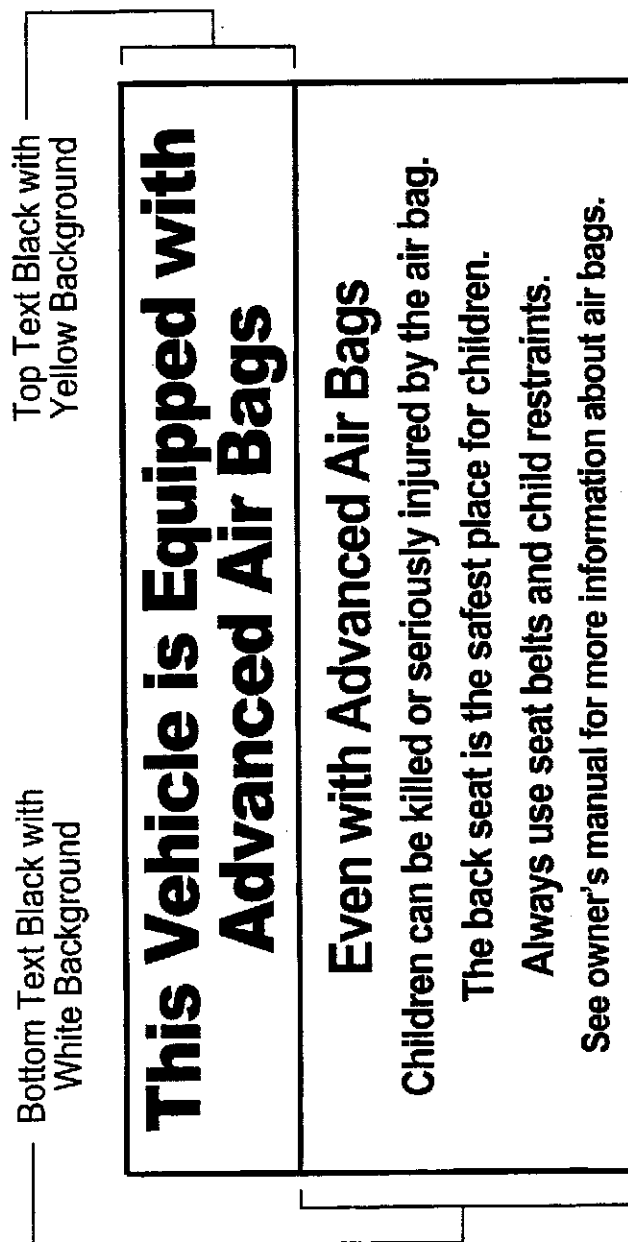


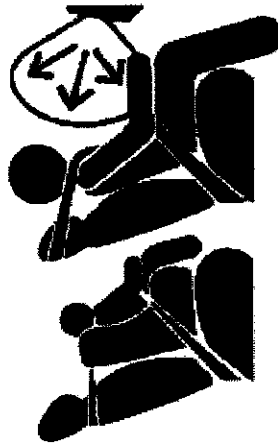
Figure 9. Removable Label on Dash.

Bottom Text and Artwork Black with
White Background

Top Text Black with
Yellow Background

! WARNING

EVEN WITH ADVANCED AIR BAGS



- Children can be killed or seriously injured by the air bag
- The back seat is the safest place for children
- Never put a rear-facing child seat in the front
- Always use seat belts and child restraints
- See owner's manual for more information about air bags

Figure 11. Sun Visor Label Visible when Visor is in Down Position.

DATA SHEET 6

FMVSS 208 READINESS INDICATOR (S4.5.2)

NHTSA No. C40307

Test Date: 03/30/04

Laboratory: TRC Inc. Test Technician(s): Ronald Stoner, Michael S. Postle

An occupant restraint system that deploys in the event of a crash shall have a monitoring system with a readiness indicator. A totally mechanical system is exempt from this requirement. (11/8/94 legal interpretation to Lawrence F. Henneberger on behalf of Breed)

- X 1. Is the system totally mechanical? Yes ; No X
(If YES this Data Sheet is complete.)
- X 2. Describe the location of the readiness indicator: Left side of instrument cluster

- X 3. Is the readiness indicator clearly visible to the driver?
X Yes-Pass; No-FAIL
- X 4. Is a list of the elements in the occupant restraint system, being monitored by the readiness indicator, provided on a label or in the owner's manual?
X Yes-Pass; No-FAIL
- X 5. Does the vehicle have an on-off switch for the passenger air bag?
 Yes (go to 6) X No (this form is complete)
6. Is the air bag readiness indicator off when the passenger air bag switch is in the off position?
 Yes-Pass; No-FAIL

REMARKS:

DATA SHEET 7

Passenger Air Bag Manual Cut-Off Device (S4.5.4)

NHTSA No. C40307

Test Date: 04/14/04

Laboratory: TRC Inc.

Test Technician(s): Ronald Stoner

- ☒ 1. Is the vehicle equipped with an on-off switch that deactivates the air bag installed at the right front outboard seating position?
☐ Yes, go to 2
☒ No, this sheet is complete
- ☐ 2. Does the vehicle have any forward-facing rear designated seating positions? (S4.5.4(a))
☐ Yes, go to 3
☐ No, go to 4
- ☐ 3. Verification of the lack of room for a child restraint in the rear seat behind the driver's seat. (S4.5.4(b))
- ☐ 3.1 Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
☐ N/A - No lumbar adjustment
- ☐ 3.2. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)
☐ N/A - No additional support adjustment
- ☐ 3.3 If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
☐ N/A - No independent fore-aft seat cushion adjustment
- ☐ 3.4. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)
☐ N/A - No independent seat cushion height adjustment.
- ☐ 3.5. Put the seat in its full rearward position. (S16.2.10.3.1)
☐ N/A - the seat does not have a fore-aft adjustment
- ☐ 3.6. If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
☐ N/A - No seat height adjustment
- ☐ 3.7 Draw a horizontal reference line on the side of the seat cushion.
- ☐ 3.8. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
☐ N/A - The seat does not have a fore-aft adjustment.
- ☐ 3.9. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position. (S8.1.2)
☐ N/A - The seat does not have fore-aft adjustment.
☐ Mid position
If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: _____
- ☐ 3.10. If seat adjustments, other than fore-aft, are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal.
☐ N/A - No adjustments
Angle of reference line as tested _____

- ___ 3.11. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
 ___ N/A – No seat back angle adjustment
 Manufacturer's design seat back angle _____
 Tested seat back angle _____
- ___ 3.12 Is the driver seat a bucket seat?
 ___ Yes, go to 3.12.1 and skip 3.12.2.
 ___ No, go to 3.12.2 and skip 3.12.1.
- ___ 3.12.1 Bucket seats:
 ___ 3.12.1.1 Locate and mark a vertical Plane B through the longitudinal centerline of the seat driver's seat cushion. (S22.2.1.3) The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle. Measure the width of the seat. Record the width of the seat. _____
 Record the distance from the edge of the seat to Plane B. _____
- ___ 3.12.1.2 Locate the longitudinal horizontal line in plane B that is tangent to the highest point of the rear seat cushion behind the driver's seat. Measure along this line from the front of the seat back of the rear seat to the rear of the seat back of the driver's seat.
 _____ mm distance
 ___ less than 720 mm – Pass
 ___ more than 720 mm – **FAIL**
 Go to 4
- ___ 3.12.2 Bench seats (including split bench seats):
 ___ 3.12.2.1 Locate and mark a vertical Plane B through the center of the steering wheel parallel to the vehicle longitudinal centerline.
 ___ 3.12.2.2 Locate the longitudinal horizontal line in plane B that is tangent to the highest point of the rear seat cushion. Measure along this line from the front of the seat back of the rear seat to the rear of the seat back of the front seat.
 _____ mm distance
 ___ less than 720 mm – Pass
 ___ more than 720 mm – **FAIL**
 Go to 4
- ___ 4. Does the device turn the air bag on and off using the vehicle's ignition key? (S4.5.4.2)
 ___ Yes – Pass
 ___ No – **FAIL**
- ___ 5. Is the on-off device separate from the ignition switch? (S4.5.4.2)
 ___ Yes – Pass
 ___ No – **FAIL**
- ___ 6. Is there a telltale light that comes on when the passenger air bag is turned off? (S4.5.4.2)
 ___ Yes – Pass
 ___ No – **FAIL**
- ___ 7. Telltale light (S4.5.4.3)
 ___ 7.1 Is the light yellow? S4.5.4.3(a)
 ___ Yes – Pass
 ___ No – **FAIL**
- ___ 7.2 Are the words "PASSENGER AIR BAG OFF" (S4.5.4.3(b))
 ___ 7.2.1 on the telltale?
 ___ Yes – Pass, go to 7.3
 ___ No – go to 7.2.2
 ___ 7.2.2 within 25 mm of the telltale? _____ mm from the edge of the telltale light
 ___ Yes – Pass
 ___ No – **FAIL**

- ___7.3 Does the telltale remain illuminated while the air bag is turned off? (S4.5.4.3c)) (Leave the air bag off for 5 minutes.)
___Yes – Pass
___No – **FAIL**
- ___7.4 Is the telltale illuminated while the air bag is turned on? (S4.5.4.3(d))
___Yes – **FAIL**
___No – Pass
- ___7.5 Is the telltale combined with the air bag readiness indicator? (S4.5.3(e))
___Yes – **FAIL**
___No – Pass
- ___8. Owner's manual
- ___8.1 Does the owner's manual contain complete instructions on the operation of the on-off switch? (S4.5.4.4(a))
___Yes – Pass
___No – **FAIL**
- ___8.2 Does the owner's manual contain a statement that the on-off switch should only be used when a member of one of the following risk groups is occupying the right front passenger seating position? (S4.5.4.4(b))
- | | |
|------------------------|--|
| Infants: | there is no back seat
the rear seat is too small to accommodate a child restraint
there is a medical condition that must be monitored constantly |
| Children aged 1 to 12: | there is no back seat
space is not always available in the rear seat
there is a medical condition that must be monitored constantly |
| Medical condition: | medical risk causes special risk for passenger
greater risk for harm than with the air bag on |
- ___Yes – Pass
___No – **FAIL**
- ___8.3 Does the owner's manual contain a warning about the safety consequences of using the on-off switch at other times?
___Yes – Pass
___No – **FAIL**

DATA SHEET 8
LAP BELT LOCKABILITY

Passenger cars, trucks, buses, and multipurpose passenger
vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Ronald Stoner, Michael S. Postle

DESIGNATED SEATING POSITION: Right front passenger

 N/A – No retractor is at this position

 N/A – The retractor is an automatic locking retractor ONLY

- X 1. Record test fore-aft seat position. Mid
(S7.1.1.5 (c)(1))
(Any position is acceptable.)
- X 2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle.
(S7.1.1.5 (a))
 X Yes-Pass; **No-FAIL**
- X 3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))
 X Yes-Pass; **No-FAIL**
- X 4. Buckle the seat belt. (S7.1.1.5(c)(1))
- X 5. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
- X 6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- X 7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
 Yes; X No (If yes, go to 7.1. If no, go to 8.)
- 7.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))
 Yes-Pass; **No-FAIL**
- X 8. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))
- X 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly.
(S7.1.1.5(c)(2))
Measured distance between A and B 65.4 inches
- X 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing.
(S7.1.1.5(c)(3))

- X 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))
Measured force application angle 10 (spec. 5 - 15 degrees)
- X 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))
Measured distance between A and B 54.5 inches
- X 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))
Record onset rate 25 lb/sec (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5))
Measured distance between A and B 54.8 inches (S7.1.1.5(c)(6))
- X 14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7)) 13-12= 0.3 inches;
X Yes-Pass; No-FAIL
- X 15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8)) 9-13= 10.6 inches;
X Yes-Pass; No-FAIL

REMARKS:

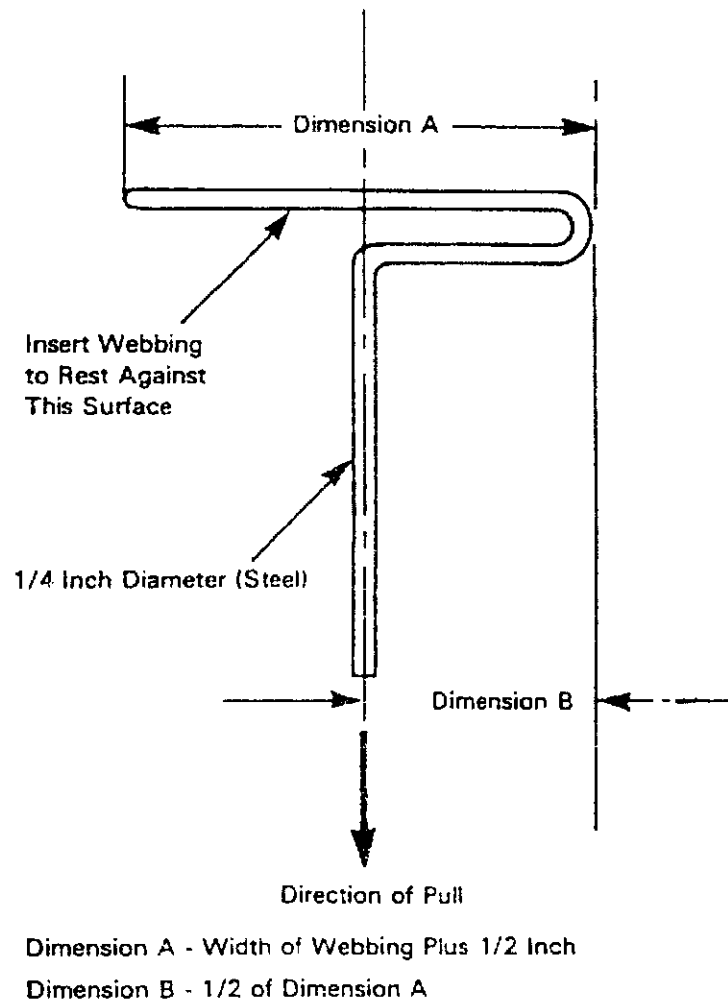


Figure 5. - Webbing Tension Pull Device

DATA SHEET 8
LAP BELT LOCKABILITY
Passenger cars, trucks, buses, and multipurpose passenger
vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Ronald Stoner, Michael S. Postle

DESIGNATED SEATING POSITION: 2nd Row right outboard passenger

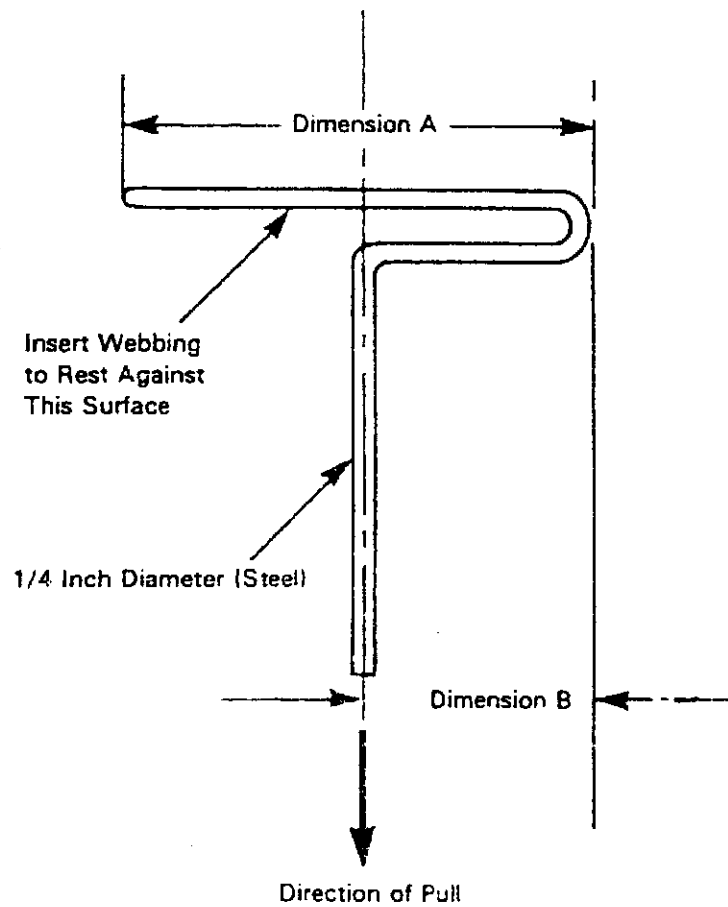
 N/A – No retractor is at this position

 N/A – The retractor is an automatic locking retractor ONLY

- X 1. Record test fore-aft seat position. Mid
(S7.1.1.5 (c)(1))
(Any position is acceptable.)
- X 2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5 (a))
 X Yes-Pass; No-FAIL
- X 3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))
 X Yes-Pass; No-FAIL
- X 4. Buckle the seat belt. (S7.1.1.5(c)(1))
- X 5. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
- X 6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- X 7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
 Yes; X No (If yes, go to 7.1. If no, go to 8.)
- 7.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))
 Yes-Pass; No-FAIL
- X 8. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))
- X 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
Measured distance between A and B 62.3 inches
- X 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))

- X 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))
Measured force application angle 10.0 (spec. 5 - 15 degrees)
- X 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))
Measured distance between A and B 42.3 inches
- X 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))
Record onset rate 25 lb/sec (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5))
Measured distance between A and B 42.8 inches (S7.1.1.5(c)(6))
- X 14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7)) 13-12= 0.5 inches;
X Yes-Pass; No-FAIL
- X 15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8)) 9-13= 19.5 inches;
X Yes-Pass; No-FAIL

REMARKS:



Dimension A - Width of Webbing Plus 1/2 Inch

Dimension B - 1/2 of Dimension A

Figure 5. - Webbing Tension Pull Device

DATA SHEET 8

LAP BELT LOCKABILITY

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Ronald Stoner, Michael S. Postle

DESIGNATED SEATING POSITION: 2nd Row left outboard passenger

 N/A – No retractor is at this position

 N/A – The retractor is an automatic locking retractor ONLY

- X 1. Record test fore-aft seat position. Mid
(S7.1.1.5 (c)(1))
(Any position is acceptable.)
- X 2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle.
(S7.1.1.5 (a))
 X Yes-Pass; No-FAIL
- X 3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))
 X Yes-Pass; No-FAIL
- X 4. Buckle the seat belt. (S7.1.1.5(c)(1))
- X 5. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
- X 6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- X 7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
 Yes; X No (If yes, go to 7.1. If no, go to 8.)
- 7.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))
 Yes-Pass; No-FAIL
- X 8. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))
- X 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly.
(S7.1.1.5(c)(2))
Measured distance between A and B 60.0 inches
- X 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing.
(S7.1.1.5(c)(3))

- X 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))
Measured force application angle 10.0 (spec. 5 - 15 degrees)
- X 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))
Measured distance between A and B 49.5 inches
- X 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))
Record onset rate 25 lb/sec (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5))
Measured distance between A and B 50.5 inches (S7.1.1.5(c)(6))
- X 14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7)) 13-12= 1.0 inches;
X Yes-Pass; No-FAIL
- X 15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8)) 9-13= 9.5 inches;
X Yes-Pass; No-FAIL

REMARKS:

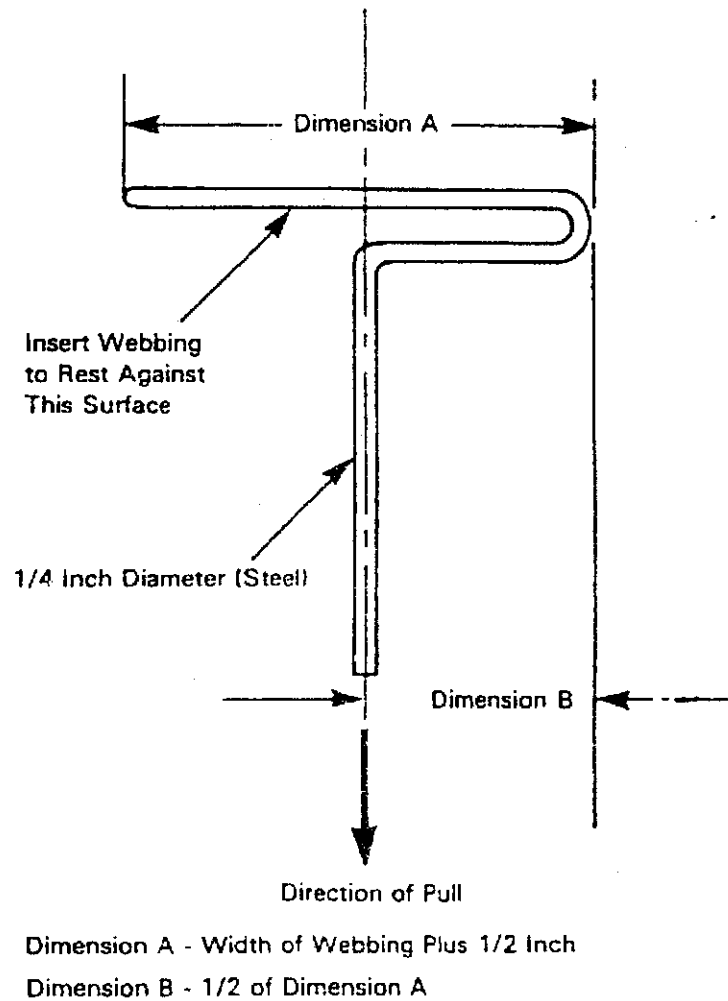


Figure 5. - Webbing Tension Pull Device

DATA SHEET 8
LAP BELT LOCKABILITY
Passenger cars, trucks, buses, and multipurpose passenger
vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc. Test Technician(s): Ronald Stoner, Michael S. Postle

DESIGNATED SEATING POSITION: 3rd Row left outboard passenger

☐ N/A – No retractor is at this position

☐ N/A – The retractor is an automatic locking retractor ONLY

- ☒ 1. Record test fore-aft seat position. Fixed
(S7.1.1.5 (c)(1))
(Any position is acceptable.)
- ☒ 2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5 (a))
☒ Yes-Pass; ☐ No-FAIL
- ☒ 3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))
☒ Yes-Pass; ☐ No-FAIL
- ☒ 4. Buckle the seat belt. (S7.1.1.5(c)(1))
- ☒ 5. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
- ☒ 6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☒ 7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
☐ Yes; ☒ No (If yes, go to 7.1. If no, go to 8.)
- ☐ 7.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))
☐ Yes-Pass; ☐ No-FAIL
- ☒ 8. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))
- ☒ 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
Measured distance between A and B 54.3 inches
- ☒ 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))

- X 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))
Measured force application angle 10.0 (spec. 5 - 15 degrees)
- X 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))
Measured distance between A and B 43.2 inches
- X 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))
Record onset rate 25 lb/sec (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5))
Measured distance between A and B 44.7 inches (S7.1.1.5(c)(6))
- X 14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7)) 13-12= 1.5 inches;
X Yes-Pass; No-FAIL
- X 15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8)) 9-13= 9.6 inches;
X Yes-Pass; No-FAIL

REMARKS:

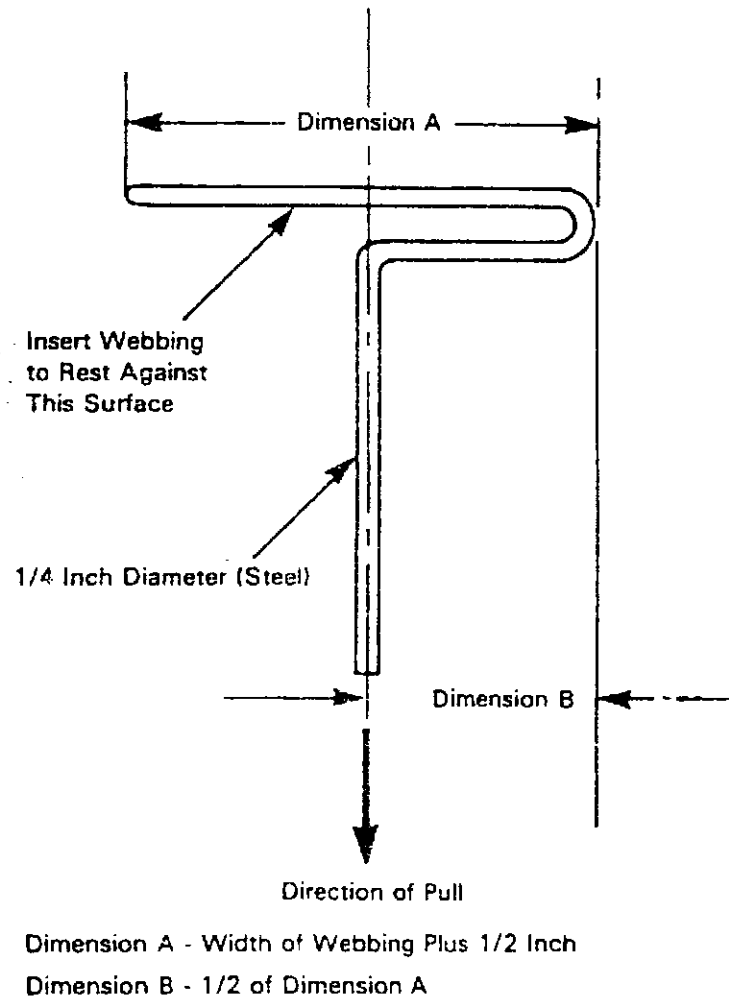


Figure 5. - Webbing Tension Pull Device

DATA SHEET 8

LAP BELT LOCKABILITY

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Ronald Stoner, Michael S. Postle

DESIGNATED SEATING POSITION: 3rd Row right outboard passenger

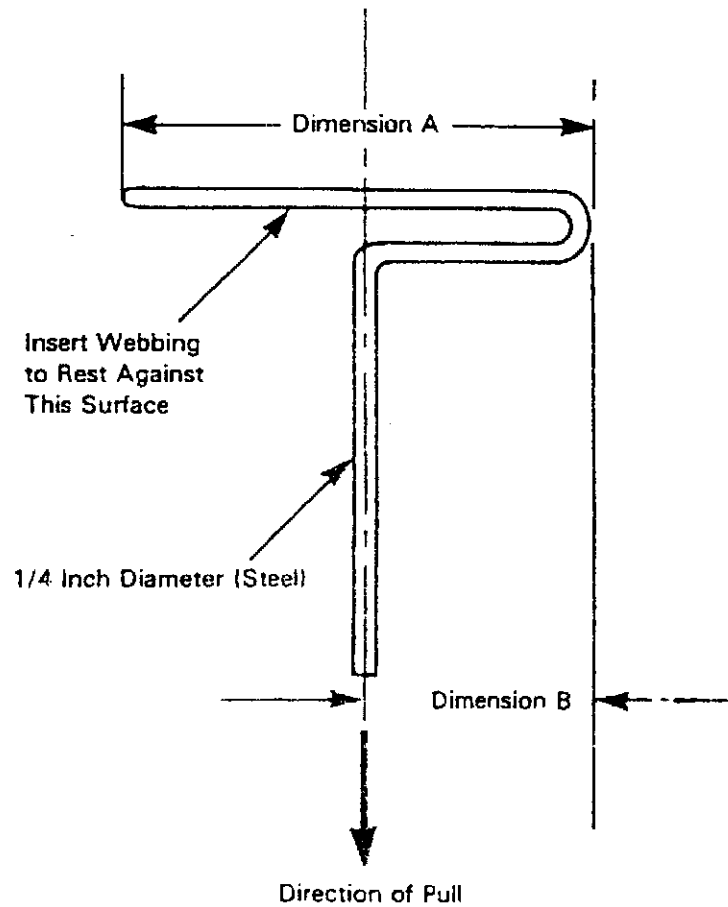
 N/A – No retractor is at this position

 N/A – The retractor is an automatic locking retractor ONLY

- X 1. Record test fore-aft seat position. Fixed
(S7.1.1.5 (c)(1))
(Any position is acceptable.)
- X 2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle.
(S7.1.1.5 (a))
 X Yes-Pass; No-FAIL
- X 3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))
 X Yes-Pass; No-FAIL
- X 4. Buckle the seat belt. (S7.1.1.5(c)(1))
- X 5. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
- X 6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- X 7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
 Yes; X No (If yes, go to 7.1. If no, go to 8.)
- 7.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))
 Yes-Pass; No-FAIL
- X 8. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))
- X 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly.
(S7.1.1.5(c)(2))
Measured distance between A and B 52.0 inches
- X 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing.
(S7.1.1.5(c)(3))

- X 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))
Measured force application angle 10.0 (spec. 5 - 15 degrees)
- X 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))
Measured distance between A and B 40.0 inches
- X 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))
Record onset rate 25 lb/sec (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5))
Measured distance between A and B 40.8 inches (S7.1.1.5(c)(6))
- X 14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7)) 13-12= 0.8 inches;
X Yes-Pass; No-FAIL
- X 15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8)) 9-13= 11.2 inches;
X Yes-Pass; No-FAIL

REMARKS:



Dimension A - Width of Webbing Plus 1/2 Inch

Dimension B - 1/2 of Dimension A

Figure 5. - Webbing Tension Pull Device

DATA SHEET 9

FMVSS 208 SEAT BELT WARNING SYSTEM CHECK (S7.3)

NHTSA No. C40307

Test Date: 04/14/04

Laboratory: TRC Inc.

Test Technician(s): Ronald Stoner

- ☒ 1. The occupant is in the driver's seat.
- ☒ 2. The seat belt is in the stowed position.
- ☒ 3. The key is in the "on" or "start" position.
- ☒ 4. The time duration of the audible signal beginning with key "on" or "start" is 6 seconds.
- ☒ 5. The occupant is in the driver's seat.
- ☒ 6. The seat belt is in the stowed position.
- ☒ 7. The key is in the "on" or "start" position.
- ☒ 8. The time duration of the warning light beginning with key "on" or "start" is >60¹ seconds.
- ☒ 9. The occupant is in the driver's seat.
- ☒ 10. The seat belt is in the latched position and with at least 4 inches of belt webbing extended.
- ☒ 11. The key is in the "on" or "start" position.
- ☒ 12. The time duration of the audible signal beginning with key "on" or "start" is 0 seconds.
- ☒ 13. The occupant is in the driver's seat.
- ☒ 14. The seat belt is in the latched position and with at least 4 inches of belt webbing extended.
- ☒ 15. The key is in the "on" or "start" position.
- ☒ 16. The time duration of the warning light beginning with key "on" or "start" is 7 seconds.
- ☒ 17. Complete the following table with the data from 4, 8, 12 and 16 to determine which option is used

		Warning light	Warning light specification	Audible signal	Audible signal specification*
S7.3 (a)(1)	Belt latched & Key on or start	Item 16 <u>7</u>		Item 12 <u>0</u>	0 seconds**
	Belt stowed & Key on or start	Item 8 <u>>60¹</u>	60 seconds minimum	Item 4 <u>6</u>	4 to 8 seconds
S7.3 (a)(2)	Belt latched & Key on or start	Item 16 _____	4 to 8 seconds	Item 12 _____	0 seconds**
	Belt stowed & Key on or start	Item 8 _____	4 to 8 seconds	Item 4 _____	4 to 8 seconds

* 49 USCS @ 30124 does NOT allow an audible signal to operate for more than 8 seconds.

** 0 seconds means the light or audible signal are NOT permitted to operate under these conditions. See 7/12/00 interpretation to Patrick Raher of Hogan and Hartson

¹ Light stays on continuously.

- ☒ 18. The seat belt warning system meets the requirements of (manufacturers may comply with either section)
☒ S7.3 (a)(1)
☐ S7.3 (a)(2)
☐ **FAIL** - Does NOT meet the requirements of either option
- ☒ 19. Note wording of visual warning: (S7.3(a)(1) and S7.3(a)(2))
☐ Fasten Seat Belts
☐ Fasten Belts
☒ Symbol 101
☐ **FAIL** - Does not use any of the above wording or symbol

DATA SHEET 10

BELT CONTACT FORCE (S7.4.3)

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: Driver

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- X 1. Does the vehicle incorporate a webbing tension-relieving device?
___ Yes (this form is complete)
X No (continue with this check sheet)
- X 3. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
X N/A - No lumbar adjustment
- X 4. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)
X N/A - No additional support adjustment
- X 5. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
X N/A - No independent fore-aft seat cushion adjustment
- X 6. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)
___ N/A - No independent seat cushion height adjustment.
- X 7. Put the seat in its full rearward position. (S16.2.10.3.1)
___ N/A - the seat does not have a fore-aft adjustment
- X 8. If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
___ N/A - No seat height adjustment
- X 9 Draw a horizontal reference line on the side of the seat cushion.
- X 10. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
___ N/A - The seat does not have a fore-aft adjustment.
- X 11. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)
X Mid position. If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: _____
- X 12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)
___ N/A - No adjustments
Reference line angle as tested 0.0

- X 13. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
___ N/A - No seat back angle adjustment
Manufacturer's design seat back angle 20.0
Tested seat back angle 20.0
- X 14. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- X 15. Fasten the seat belt latch.
- X 16. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- X 17. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.
Contact force 0.41 lb.
X 0.0 to 0.7 pounds - Pass
___ **greater than 0.7 pounds - FAIL**

DATA SHEET 10

BELT CONTACT FORCE (S7.4.3)

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: Right front passenger

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- ☒ 1. Does the vehicle incorporate a webbing tension-relieving device?
___ Yes (this form is complete)
☒ No (continue with this check sheet)
- ☒ 3. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
☒ N/A - No lumbar adjustment
- ☒ 4. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)
☒ N/A - No additional support adjustment
- ☒ 5. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
☒ N/A - No independent fore-aft seat cushion adjustment
- ☒ 6. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)
☒ N/A - No independent seat cushion height adjustment.
- ☒ 7. Put the seat in its full rearward position. (S16.2.10.3.1)
___ N/A - the seat does not have a fore-aft adjustment
- ☒ 8. If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
___ N/A - No seat height adjustment
- ☒ 9. Draw a horizontal reference line on the side of the seat cushion.
- ☒ 10. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
___ N/A - The seat does not have a fore-aft adjustment.
- ☒ 11. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)
☒ Mid position. If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: _____
- ☒ 12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)
☒ N/A - No adjustments
Reference line angle as tested 0.0

- X 13. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
___ N/A – No seat back angle adjustment
Manufacturer's design seat back angle 20.0
Tested seat back angle 20.0
- X 14. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- X 15. Fasten the seat belt latch.
- X 16. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- X 17. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.
Contact force 0.38 lb.
X 0.0 to 0.7 pounds - Pass
___ **greater than 0.7 pounds – FAIL**

DATA SHEET 10

BELT CONTACT FORCE (S7.4.3)

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: 2nd Row right outboard passenger

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- X 1. Does the vehicle incorporate a webbing tension-relieving device?
___ Yes (this form is complete)
X No (continue with this check sheet)
- X 3. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
X N/A - No lumbar adjustment
- X 4. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)
X N/A - No additional support adjustment
- X 5. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
X N/A - No independent fore-aft seat cushion adjustment
- X 6. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)
X N/A - No independent seat cushion height adjustment.
- X 7. Put the seat in its full rearward position. (S16.2.10.3.1)
___ N/A - the seat does not have a fore-aft adjustment
- X 8. If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
___ N/A - No seat height adjustment
- X 9 Draw a horizontal reference line on the side of the seat cushion.
- X 10. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
___ N/A - The seat does not have a fore-aft adjustment.
- X 11. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)
X Mid position. If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: _____
- X 12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal,, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)
X N/A - No adjustments
Reference line angle as tested _____

- X 13. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
___ N/A – No seat back angle adjustment
Manufacturer's design seat back angle 20.0
Tested seat back angle 21.0
- X 14. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- X 15. Fasten the seat belt latch.
- X 16. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- X 17. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.
Contact force 0.55 lb.
X 0.0 to 0.7 pounds - Pass
___ **greater than 0.7 pounds – FAIL**

DATA SHEET 10

BELT CONTACT FORCE (S7.4.3)

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: 2nd Row left outboard passenger

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- X 1. Does the vehicle incorporate a webbing tension-relieving device?
___ Yes (this form is complete)
X No (continue with this check sheet)
- X 3. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
X N/A - No lumbar adjustment
- X 4. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)
X N/A - No additional support adjustment
- X 5. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
X N/A - No independent fore-aft seat cushion adjustment
- X 6. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)
X N/A - No independent seat cushion height adjustment.
- X 7. Put the seat in its full rearward position. (S16.2.10.3.1)
___ N/A - the seat does not have a fore-aft adjustment
- X 8. If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
___ N/A - No seat height adjustment
- X 9. Draw a horizontal reference line on the side of the seat cushion.
- X 10. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
___ N/A - The seat does not have a fore-aft adjustment.
- X 11. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)
X Mid position. If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: _____
- X 12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)
X N/A - No adjustments
Reference line angle as tested _____

- X 13. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
___ N/A – No seat back angle adjustment
Manufacturer's design seat back angle 20.0
Tested seat back angle 21.0
- X 14. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- X 15. Fasten the seat belt latch.
- X 16. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- X 17. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.
Contact force 0.28 lb.
X 0.0 to 0.7 pounds - Pass
___ greater than 0.7 pounds – FAIL

DATA SHEET 10

BELT CONTACT FORCE (S7.4.3)

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: 3rd Row left outboard passenger

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- X 1. Does the vehicle incorporate a webbing tension-relieving device?
___ Yes (this form is complete)
X No (continue with this check sheet)
- X 3. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
X N/A - No lumbar adjustment
- X 4. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)
X N/A - No additional support adjustment
- X 5. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
X N/A - No independent fore-aft seat cushion adjustment
- X 6. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)
X N/A - No independent seat cushion height adjustment.
- X 7. Put the seat in its full rearward position. (S16.2.10.3.1)
X N/A - the seat does not have a fore-aft adjustment
- X 8. If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
X N/A - No seat height adjustment
- X 9. Draw a horizontal reference line on the side of the seat cushion.
- X 10. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
X N/A - The seat does not have a fore-aft adjustment.
- X 11. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)
___ Mid position. If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: No adjustments
- X 12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)
X N/A - No adjustments
Reference line angle as tested _____

- X 13. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
X N/A – No seat back angle adjustment
Manufacturer's design seat back angle _____
Tested seat back angle _____
- X 14. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- X 15. Fasten the seat belt latch.
- X 16. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- X 17. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.
Contact force 0.34 lb.
X 0.0 to 0.7 pounds - Pass
____ greater than 0.7 pounds – FAIL

DATA SHEET 10

BELT CONTACT FORCE (S7.4.3)

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: 3rd Row right outboard passenger

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- X 1. Does the vehicle incorporate a webbing tension-relieving device?
___ Yes (this form is complete)
X No (continue with this check sheet)
- X 3. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
X N/A - No lumbar adjustment
- X 4. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)
X N/A - No additional support adjustment
- X 5. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
X N/A - No independent fore-aft seat cushion adjustment
- X 6. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)
X N/A - No independent seat cushion height adjustment.
- X 7. Put the seat in its full rearward position. (S16.2.10.3.1)
X N/A - the seat does not have a fore-aft adjustment
- X 8. If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
X N/A - No seat height adjustment
- X 9. Draw a horizontal reference line on the side of the seat cushion.
- X 10. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
X N/A - The seat does not have a fore-aft adjustment.
- X 11. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)
___ Mid position. If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: No adjustments
- X 12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)
X N/A - No adjustments
Reference line angle as tested _____

- X 13. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
X N/A – No seat back angle adjustment
Manufacturer's design seat back angle _____
Tested seat back angle _____
- X 14. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- X 15. Fasten the seat belt latch.
- X 16. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- X 17. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.
Contact force 0.42 lb.
X 0.0 to 0.7 pounds - Pass
greater than 0.7 pounds – FAIL

DATA SHEET 11

LATCHPLATE ACCESS (S7.4.4)

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: Driver

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- X 1. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (8.1.3)
X N/A – No lumbar adjustment
- X 2. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)
X N/A – No additional support adjustment
- X 3. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
X N/A – No independent fore-aft seat cushion adjustment
- X 4. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)
X N/A – No independent seat cushion height adjustment
- X 5. Put the seat in its full rearward position. (S16.2.10.3.1)
___ N/A - the seat does not have a fore-aft adjustment
- X 6. If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
___ N/A – No seat height adjustment
- X 7. Draw a horizontal reference line on the side of the seat cushion
- X 8. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
___ N/A - The seat does not have a fore-aft adjustment.
- X 9. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the forwardmost fore-aft position for this test. (S10.7)
- X 10. If seat adjustments, other than fore-aft, are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal.
___ N/A – No adjustments
Reference line angle as tested 0.0

- X 11. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
___ N/A – No seat back angle adjustment
Manufacturer's design seat back angle 20.0
Tested seat back angle 20.0
- X 12. Position the test dummy using the procedures in Appendix A. (Some modifications to the positioning procedure may need to be made because the seat is in its forward most position. Note on the Appendix A positioning check sheet any deviations necessary to position the Part 572, Subpart E dummy.) Include the positioning check sheet with this form.
- X 13. Position the adjustable seat belt anchorage in the manufacturer's nominal design position for a 50th percentile adult male occupant.
- X 14. Attach the inboard reach string to the base of the head following the instructions on Figure 3.
- X 15. Attach the outboard reach string to the torso sheath following the instructions on Figure 3.
- X 16. Place the latch plate in the stowed position.
- X 17. Extend inboard reach string in front of the dummy and then backward and outboard to the latch plate to generate an arc of the reach envelope of the test dummy's arms. Is the latch plate within the reach envelope?
X Yes - Pass ___ NO
- X 18. Extend outboard reach string in front of the dummy and then backward and outboard to the latch plate to generate an arc of the reach envelope of the test dummy's arms. Is the latch plate within the reach envelope?
X Yes - Pass ___ NO
- X 19. Is the latch plate within the inboard (item 17) or outboard (item 18) reach envelope?
X Yes - Pass ___ **NO - FAIL**
- X 20. Using the clearance test block, specified in Figure 4, is there sufficient clearance between the vehicle seat and the side of vehicle interior to allow the test block to move unhindered to the latch plate or buckle?
X Yes - Pass ___ **NO - FAIL**

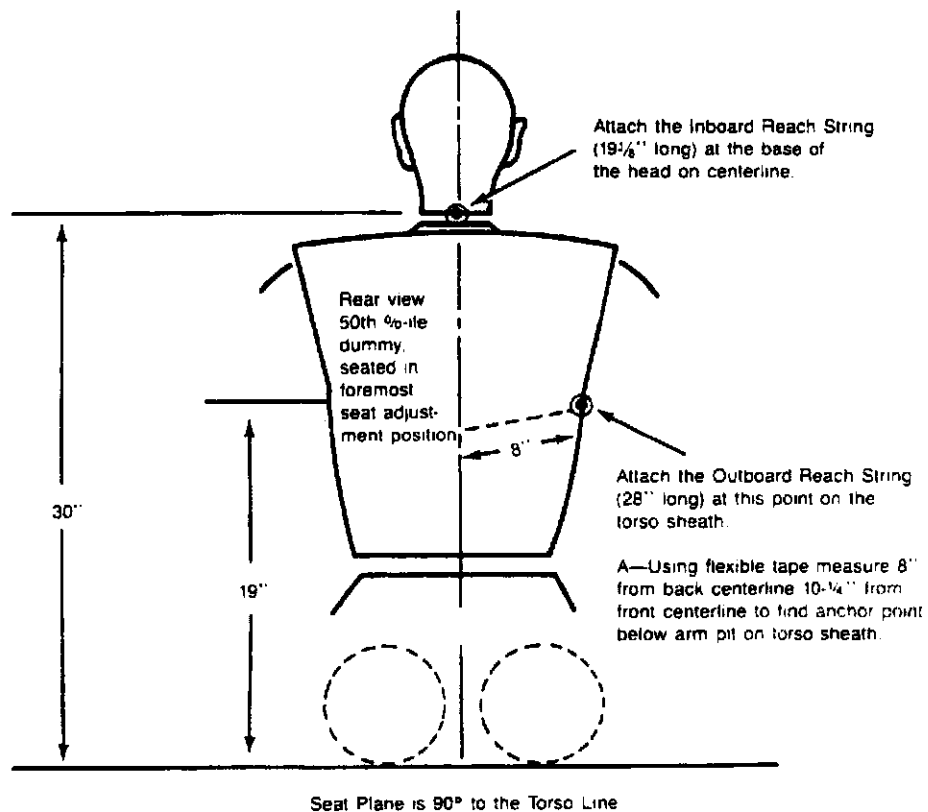


Figure 3. Location of Anchoring Points for Latchplate Reach Limiting Chains or Strings to Test for Latchplate Accessibility Using Subpart E Test Device

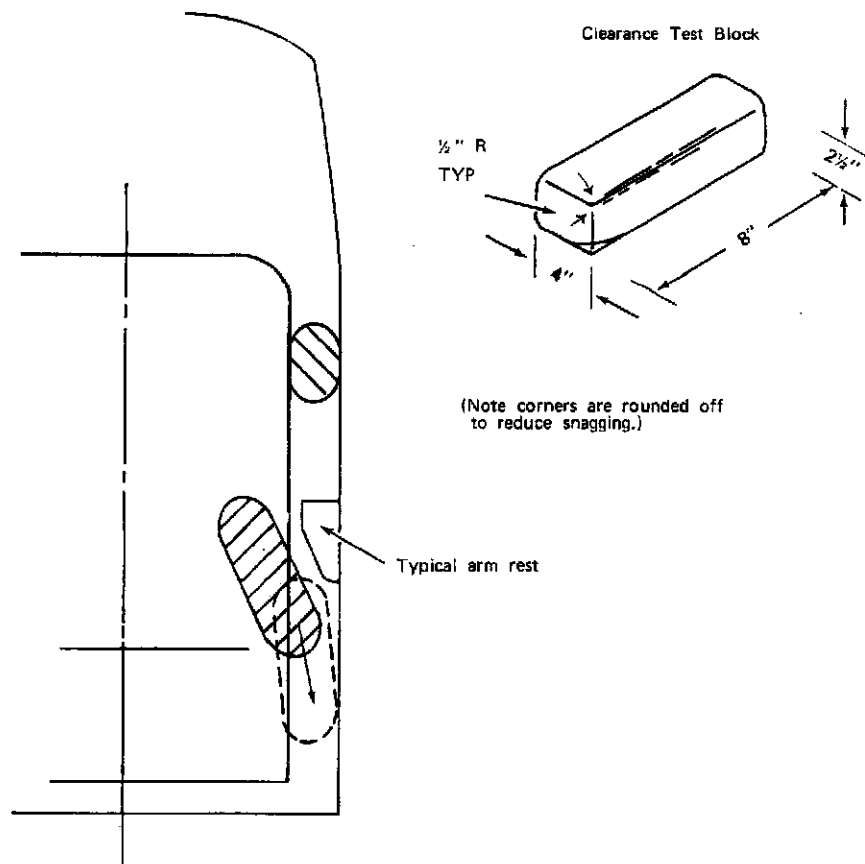


Figure 4—USE OF CLEARANCE TEST BLOCK TO DETERMINE HAND/ARM ACCESS

DATA SHEET 11

LATCHPLATE ACCESS (S7.4.4)

NHTSA No. C40307

Test Date: 04/15/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: Right front passenger

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- ☒ 1. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (8.1.3)
☒ N/A - No lumbar adjustment
- ☒ 2. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)
☒ N/A - No additional support adjustment
- ☒ 3. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
☒ N/A - No independent fore-aft seat cushion adjustment
- ☒ 4. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)
☒ N/A - No independent seat cushion height adjustment.
- ☒ 5. Put the seat in its full rearward position. (S16.2.10.3.1)
☐ N/A - the seat does not have a fore-aft adjustment
- ☒ 6. If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
☐ N/A - No seat height adjustment
- ☒ 7. Draw a horizontal reference line on the side of the seat cushion
- ☒ 8. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
☐ N/A - The seat does not have a fore-aft adjustment.
- ☒ 9. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the forwardmost fore-aft position for this test. (S10.7)
- ☒ 10. If seat adjustments, other than fore-aft, are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal.
☒ N/A - No adjustments
Reference line angle as tested 0.0

- X 11. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
 ___ N/A – No seat back angle adjustment
 Manufacturer's design seat back angle 20.0
 Tested seat back angle 20.0
- X 12. Position the test dummy using the procedures in Appendix A. (Some modifications to the positioning procedure may need to be made because the seat is in its forward most position. Note on the Appendix A positioning check sheet any deviations necessary to position the Part 572, Subpart E dummy.) Include the positioning check sheet with this form.
- X 13. Position the adjustable seat belt anchorage in the manufacturer's nominal design position for a 50th percentile adult male occupant.
- X 14. Attach the inboard reach string to the base of the head following the instructions on Figure 3.
- X 15. Attach the outboard reach string to the torso sheath following the instructions on Figure 3.
- X 16. Place the latch plate in the stowed position.
- X 17. Extend inboard reach string in front of the dummy and then backward and outboard to the latch plate to generate an arc of the reach envelope of the test dummy's arms. Is the latch plate within the reach envelope?
 X Yes - Pass ___ NO
- X 18. Extend outboard reach string in front of the dummy and then backward and outboard to the latch plate to generate an arc of the reach envelope of the test dummy's arms. Is the latch plate within the reach envelope?
 X Yes - Pass ___ NO
- X 19. Is the latch plate within the inboard (item 17) or outboard (item 18) reach envelope?
 X Yes - Pass ___ **NO - FAIL**
- X 20. Using the clearance test block, specified in Figure 4, is there sufficient clearance between the vehicle seat and the side of vehicle interior to allow the test block to move unhindered to the latch plate or buckle?
 X Yes - Pass ___ **NO - FAIL**

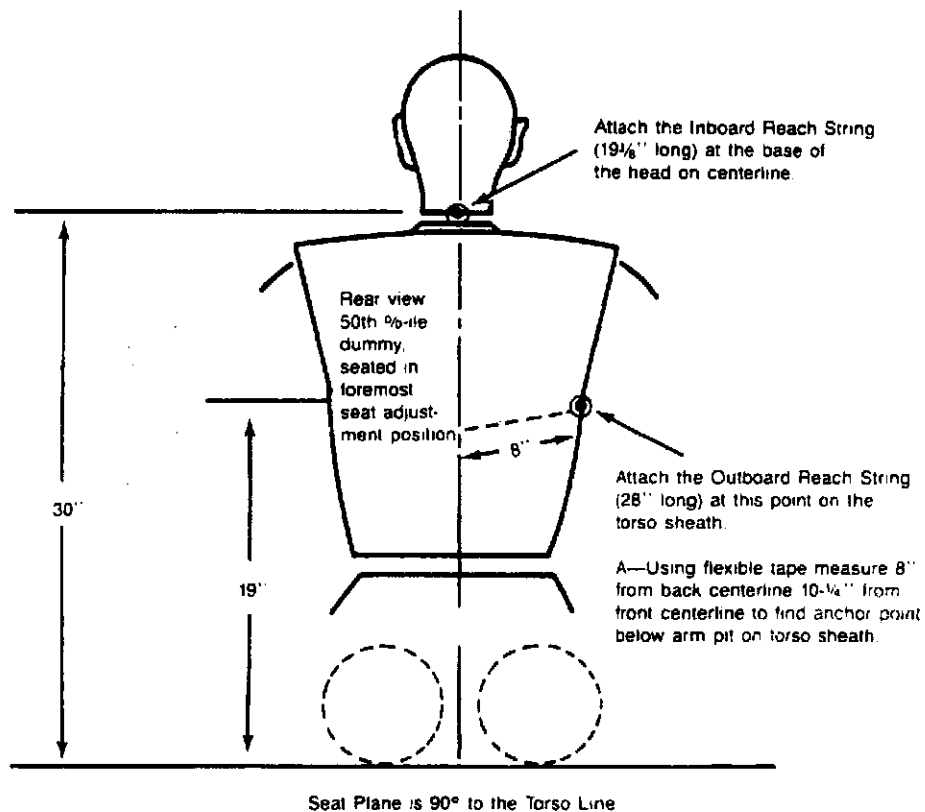


Figure 3. Location of Anchoring Points for Latchplate Reach Limiting Chains or Strings to Test for Latchplate Accessibility Using Subpart E Test Device

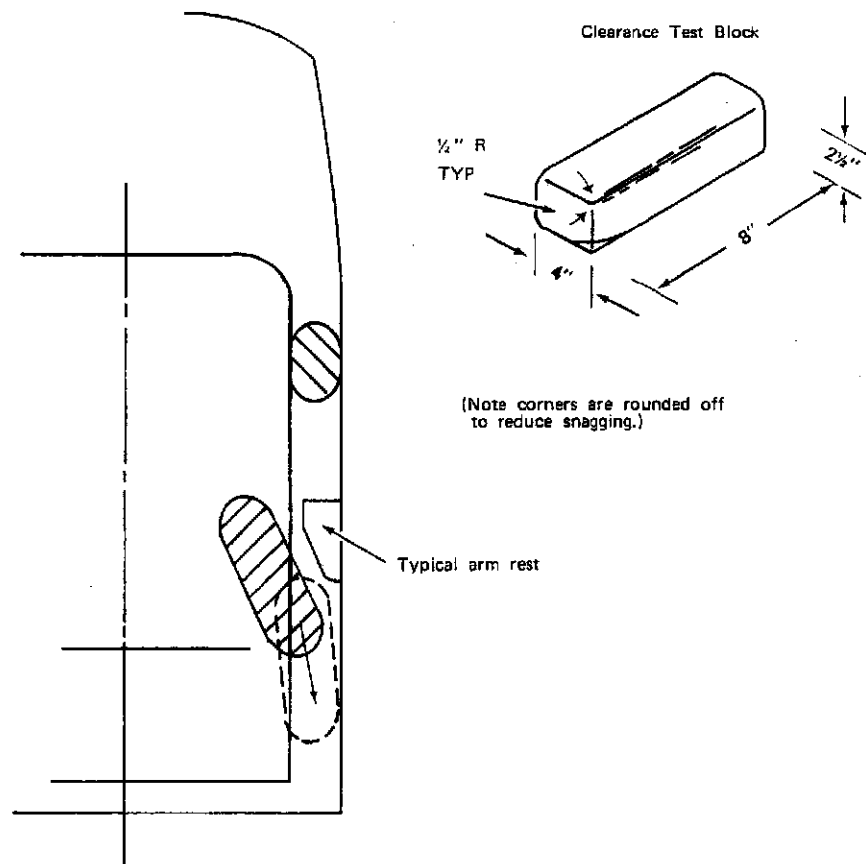


Figure 4—USE OF CLEARANCE TEST BLOCK TO DETERMINE HAND/ARM ACCESS

DATA SHEET 12
SEAT BELT RETRACTION (S7.4.5)

NHTSA No. C40307

Test Date: 04/14/04

Laboratory: TRC Inc.

Test Technician(s): Ronald Stoner

DESIGNATED SEATING POSITION: Driver

GVWR: 5700 lbs

Test all front outboard seat belts, except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- X 1. Is the vehicle a passenger car or walk-in van-type vehicle?
___ Yes, this form is complete
X No
- X 2. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
X N/A - No lumbar adjustment
- X 3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)
X N/A - No additional support adjustment
- X 4. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
X N/A - No independent fore-aft seat cushion adjustment
- X 5. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)
X N/A - No independent seat cushion height adjustment.
- X 6. Put the seat in its full rearward position.
X N/A - the seat does not have a fore-aft adjustment
- X 7. If the seat height is adjustable, put it in the full down position. (S8.1.2)
___ N/A - No seat height adjustment
- X 7 Draw a horizontal line on the side of the seat cushion.
- X 8. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
___ N/A - The seat does not have a fore-aft adjustment.
- X 9. Using only the controls that change the seat in the fore-aft direction, place the seat in the middle fore-aft position. (S8.1.2)
If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: _____
- X 10. If seat adjustments, other than fore-aft, are present and the reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2)
___ N/A - No seat adjustments
Reference angle as tested 0.0

- X 11. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S8.1.3)
 ___ N/A – No seat back angle adjustment
 Manufacturer's design seat back angle 20.0
 Tested seat back angle 20.0
- X 12. If adjustable, set the head restraint at the full up and full forward position. (S8.1.3) Any adjustment of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible.
 ___ N/A – No head restraint adjustment
- X 13. Place any adjustable seat belt anchorages at the vehicle manufacturer's nominal design position for a 50th percentile adult male occupant (S8.1.3)
 ___ N/A – No adjustable upper seat belt anchorage
 Manufacturer's specified anchorage position. 2nd position down from top
 Tested anchorage position 2nd position down from top
- X 14. Is the driver seat a bucket seat?
 X Yes, go to 14.1 and skip 14.2.
 ___ No, go to 14.2 and skip 14.1.
- X 14.1 Bucket seats:
 Locate and mark a vertical Plane B through the longitudinal centerline of the seat. The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle.
 Record the width of the seat. 22.0 inches
 Record the distance from the edge of the seat to Plane B. 11.0 inches
- ___ 14.2 Bench seats (including split bench seats):
 ___ Driver seat: Locate and mark a vertical Plane B through the center of the steering wheel parallel to the vehicle longitudinal centerline.
 ___ Passenger seat: Locate and mark a vertical longitudinal Plane B on the seat that is the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel.
 Distance from the vehicle centerline to the center of the steering wheel _____
 Distance from the vehicle centerline to Plane B _____
- X 15. Stow outboard armrests that are capable of being stowed. (S7.4.5)
- X 16. Remove the arms of a Subpart E dummy and place it in the seat such that the midsagittal plane is coincident with Plane B and the upper torso rests against the seat back. (S10.4.1.1 & S10.4.1.2)
- X 17. Rest the thighs on the seat cushion.
- X 18. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined by using the equipment and procedures specified in SAE J826 (APR 1980). (S10.4.2.1) Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)
 0.3 horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
 0.1 vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
 23.0 pelvic angle (20° to 25°)
 _____ vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
 _____ pelvic angle (20° to 25°) (S10.4.2.2)
- X 19. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.
 X measured distance (10.6 inches) (S10.5)
- X 20. To the extent practicable keep the thighs and the legs in a vertical plane (S10.5) and rest the thighs on the seat cushion while resting the feet on the floorpan or toe board.
- X 21. Fasten the seat belt around the dummy.

- ☒ 22. Remove all slack from the lap belt portion. (S10.9)
- ☒ 23. Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)
- ☒ 24. Apply a 2 to 4 pound tension load to the lap belt. (S10.9)
4 pound load applied
- ☒ 25. Is the belt system equipped with a tension relieving device?
☐ Yes, continue
☒ No, go to 26
- ☐ 25.1 Introduce the maximum amount of slack into the upper torso bet that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9). Go to 25.
- ☒ 26. Check the statement that applies to this test vehicle:
- ☐ 26.1 The torso and lap belt webbing of the seat belt system automatically retracts to a stowed position when the adjacent vehicle door is in an open position and the seat belt latch plate is released. ☐ Pass
- ☒ 26.2 The torso and lap belt webbing of the seat belt system automatically retracts when the seat belt latch plate is released. ☒ Pass
- ☐ 26.3 Neither A or B apply. ☐ FAIL
- ☒ 27. With the webbing and hardware in the stowed position are the webbing and hardware prevented from being pinched when the door is closed?
☒ Yes - Pass ☐ NO - FAIL
- ☒ 28. If this test vehicle has an open body (without doors) and has a belt system with a tension-relieving device, does the belt system fully retract when the tension-relieving device is deactivated?
☒ N/A
☐ Yes - Pass ☐ NO - FAIL

DATA SHEET 12
SEAT BELT RETRACTION (S7.4.5)

NHTSA No. C40307

Test Date: 04/14/04

Laboratory: TRC Inc.

Test Technician(s): Ronald Stoner

DESIGNATED SEATING POSITION: Right front passenger

GVWR: 5700 lbs

Test all front outboard seat belts, except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- X 1. Is the vehicle a passenger car or walk-in van-type vehicle?
 Yes, this form is complete
 X No
- X 2. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
 X N/A - No lumbar adjustment
- X 3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)
 X N/A - No additional support adjustment
- X 4. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
 X N/A - No independent fore-aft seat cushion adjustment
- X 5. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)
 X N/A - No independent seat cushion height adjustment.
- X 6. Put the seat in its full rearward position.
 X N/A - the seat does not have a fore-aft adjustment
- X 7. If the seat height is adjustable, put it in the full down position. (S8.1.2)
 N/A - No seat height adjustment
- X 7 Draw a horizontal line on the side of the seat cushion.
- X 8. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
 N/A - The seat does not have a fore-aft adjustment.
- X 9. Using only the controls that change the seat in the fore-aft direction, place the seat in the middle fore-aft position. (S8.1.2)
 If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: _____
- X 10. If seat adjustments, other than fore-aft, are present and the reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2)
 N/A - No seat adjustments
 Reference angle as tested 0.0

- X 11. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S8.1.3)
 ___ N/A – No seat back angle adjustment
 Manufacturer's design seat back angle 20.0
 Tested seat back angle 20.0
- X 12. If adjustable, set the head restraint at the full up and full forward position. (S8.1.3) Any adjustment of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible.
 ___ N/A – No head restraint adjustment
- X 13. Place any adjustable seat belt anchorages at the vehicle manufacturer's nominal design position for a 50th percentile adult male occupant (S8.1.3)
 ___ N/A – No adjustable upper seat belt anchorage
 Manufacturer's specified anchorage position. 2nd position down from top
 Tested anchorage position 2nd position down from top
- X 14. Is the driver seat a bucket seat?
 X Yes, go to 14.1 and skip 14.2.
 ___ No, go to 14.2 and skip 14.1.
- X 14.1 Bucket seats:
 Locate and mark a vertical Plane B through the longitudinal centerline of the seat. The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle.
 Record the width of the seat. 22.0 inches
 Record the distance from the edge of the seat to Plane B. 11.0 inches
- ___ 14.2 Bench seats (including split bench seats):
 ___ Driver seat: Locate and mark a vertical Plane B through the center of the steering wheel parallel to the vehicle longitudinal centerline.
 ___ Passenger seat: Locate and mark a vertical longitudinal Plane B on the seat that is the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel.
 Distance from the vehicle centerline to the center of the steering wheel _____
 Distance from the vehicle centerline to Plane B _____
- X 15. Stow outboard armrests that are capable of being stowed. (S7.4.5)
- X 16. Remove the arms of a Subpart E dummy and place it in the seat such that the midsagittal plane is coincident with Plane B and the upper torso rests against the seat back. (S10.4.1.1 & S10.4.1.2)
- X 17. Rest the thighs on the seat cushion.
- X 18. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined by using the equipment and procedures specified in SAE J826 (APR 1980). (S10.4.2.1) Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)
 0.2 horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
 0.0 vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
 22.5 pelvic angle (20° to 25°)
 _____ vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
 _____ pelvic angle (20° to 25°) (S10.4.2.2)
- X 19. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.
 X measured distance (10.6 inches) (S10.5)
- X 20. To the extent practicable keep the thighs and the legs in a vertical plane (S10.5) and rest the thighs on the seat cushion while resting the feet on the floorpan or toe board.
- X 21. Fasten the seat belt around the dummy.

- ☒ 22. Remove all slack from the lap belt portion. (S10.9)
- ☒ 23. Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)
- ☒ 24. Apply a 2 to 4 pound tension load to the lap belt. (S10.9)
 4 pound load applied
- ☒ 25. Is the belt system equipped with a tension relieving device?
 ___ Yes, continue
 ☒ No, go to 26
- ___ 25.1 Introduce the maximum amount of slack into the upper torso bet that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9). Go to 25.
- ☒ 26. Check the statement that applies to this test vehicle:
- ___ 26.1 The torso and lap belt webbing of the seat belt system automatically retracts to a stowed position when the adjacent vehicle door is in an open position and the seat belt latch plate is released. ___ Pass
- ☒ 26.2 The torso and lap belt webbing of the seat belt system automatically retracts when the seat belt latch plate is released. ☒ Pass
- ___ 26.3 Neither A or B apply. ___ **FAIL**
- ☒ 27. With the webbing and hardware in the stowed position are the webbing and hardware prevented from being pinched when the door is closed?
 ☒ Yes - Pass ___ **NO - FAIL**
- ☒ 28. If this test vehicle has an open body (without doors) and has a belt system with a tension-relieving device, does the belt system fully retract when the tension-relieving device is deactivated?
 ☒ N/A
 ___ Yes - Pass ___ **NO - FAIL**

DATA SHEET 13
SEAT BELT GUIDES AND HARDWARE (S7.4.6)

NHTSA No. C40307

Test Date: 04/14/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: Driver

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- ☒ 1. Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))
___ Yes; this form is complete
☒ No; got to 2
- ☒ 2. Is the seat removable? (S7.4.6.1(b))
___ Yes; this form is complete
☒ No; got to 3
- ☒ 3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))
___ Yes; this form is complete
☒ No; got to 4
- ☒ 4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))
___ Yes: go to 5.
☒ No: this form is complete.
- ___ 5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))
___ Yes - Pass
___ **NO - FAIL**
Identify the part(s) on top or above the seat.
___ seat belt latch plate; ___ buckle; ___ seat belt webbing
- ___ 6. Are the remaining two seat belt parts accessible under normal conditions?
___ Yes - Pass
___ **NO - FAIL**
- ___ 7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL.**

DATA SHEET 13
SEAT BELT GUIDES AND HARDWARE (S7.4.6)

NHTSA No. C40307

Test Date: 04/14/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: Right front passenger

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- ☒ 1. Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))
___ Yes; this form is complete
☒ No; got to 2
- ☒ 2. Is the seat removable? (S7.4.6.1(b))
___ Yes; this form is complete
☒ No; got to 3
- ☒ 3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))
___ Yes; this form is complete
☒ No; got to 4
- ☒ 4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))
___ Yes: go to 5.
☒ No: this form is complete.
- ___ 5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))
___ Yes - Pass
___ NO - FAIL
Identify the part(s) on top or above the seat.
___ seat belt latch plate; ___ buckle; ___ seat belt webbing
- ___ 6. Are the remaining two seat belt parts accessible under normal conditions?
___ Yes - Pass
___ NO - FAIL
- ___ 7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)
___ Yes - Pass **___ NO - FAIL**
- ___ 8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
___ Yes - Pass **___ NO - FAIL**
- ___ 9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
___ Yes - Pass **___ NO - FAIL**
- ___ 10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
___ Yes - Pass **___ NO - FAIL.**

DATA SHEET 13
SEAT BELT GUIDES AND HARDWARE (S7.4.6)

NHTSA No. C40307

Test Date: 04/14/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: 2nd Row right outboard passenger

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- ☒ 1. Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))
___ Yes; this form is complete
☒ No; got to 2
- ☒ 2. Is the seat removable? (S7.4.6.1(b))
___ Yes; this form is complete
☒ No; got to 3
- ☒ 3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))
☒ Yes; this form is complete
___ No; got to 4
- ___ 4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))
___ Yes: go to 5.
___ No: this form is complete.
- ___ 5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))
___ Yes - Pass
___ **NO - FAIL**
Identify the part(s) on top or above the seat.
___ seat belt latch plate; ___ buckle; ___ seat belt webbing
- ___ 6. Are the remaining two seat belt parts accessible under normal conditions?
___ Yes - Pass
___ **NO - FAIL**
- ___ 7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL.**

DATA SHEET 13
SEAT BELT GUIDES AND HARDWARE (S7.4.6)

NHTSA No. C40307

Test Date: 04/14/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: 2nd Row left outboard passenger

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- ☒ 1. Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))
___ Yes; this form is complete
☒ No; got to 2
- ☒ 2. Is the seat removable? (S7.4.6.1(b))
___ Yes; this form is complete
☒ No; got to 3
- ☒ 3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))
☒ Yes; this form is complete
___ No; got to 4
- ___ 4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))
___ Yes; go to 5.
___ No; this form is complete.
- ___ 5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))
___ Yes - Pass
___ **NO - FAIL**
Identify the part(s) on top or above the seat.
___ seat belt latch plate; ___ buckle; ___ seat belt webbing
- ___ 6. Are the remaining two seat belt parts accessible under normal conditions?
___ Yes - Pass
___ **NO - FAIL**
- ___ 7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL.**

DATA SHEET 13
SEAT BELT GUIDES AND HARDWARE (S7.4.6)

NHTSA No. C40307

Test Date: 04/14/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: 3rd Row left outboard passenger

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- ☒ 1. Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))
___ Yes; this form is complete
☒ No; got to 2
- ☒ 2. Is the seat removable? (S7.4.6.1(b))
___ Yes; this form is complete
☒ No; got to 3
- ☒ 3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))
☒ Yes; this form is complete
___ No; got to 4
- ___ 4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))
___ Yes; go to 5.
___ No: this form is complete.
- ___ 5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))
___ Yes - Pass
___ **NO - FAIL**
Identify the part(s) on top or above the seat.
___ seat belt latch plate; ___ buckle; ___ seat belt webbing
- ___ 6. Are the remaining two seat belt parts accessible under normal conditions?
___ Yes - Pass
___ **NO - FAIL**
- ___ 7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL.**

DATA SHEET 13
SEAT BELT GUIDES AND HARDWARE (S7.4.6)

NHTSA No. C40307

Test Date: 04/14/04

Laboratory: TRC Inc.

Test Technician(s): Michael S. Postle

DESIGNATED SEATING POSITION: 3rd Row right outboard passenger

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

- ☒ 1. Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))
___ Yes; this form is complete
☒ No; got to 2
- ☒ 2. Is the seat removable? (S7.4.6.1(b))
___ Yes; this form is complete
☒ No; got to 3
- ☒ 3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))
☒ Yes; this form is complete
___ No; got to 4
- ___ 4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))
___ Yes; go to 5.
___ No: this form is complete.
- ___ 5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))
___ Yes - Pass
___ **NO - FAIL**
Identify the part(s) on top or above the seat.
___ seat belt latch plate; ___ buckle; ___ seat belt webbing
- ___ 6. Are the remaining two seat belt parts accessible under normal conditions?
___ Yes - Pass
___ **NO - FAIL**
- ___ 7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL**
- ___ 10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
___ Yes - Pass ___ **NO - FAIL.**

Appendix A

Photographs

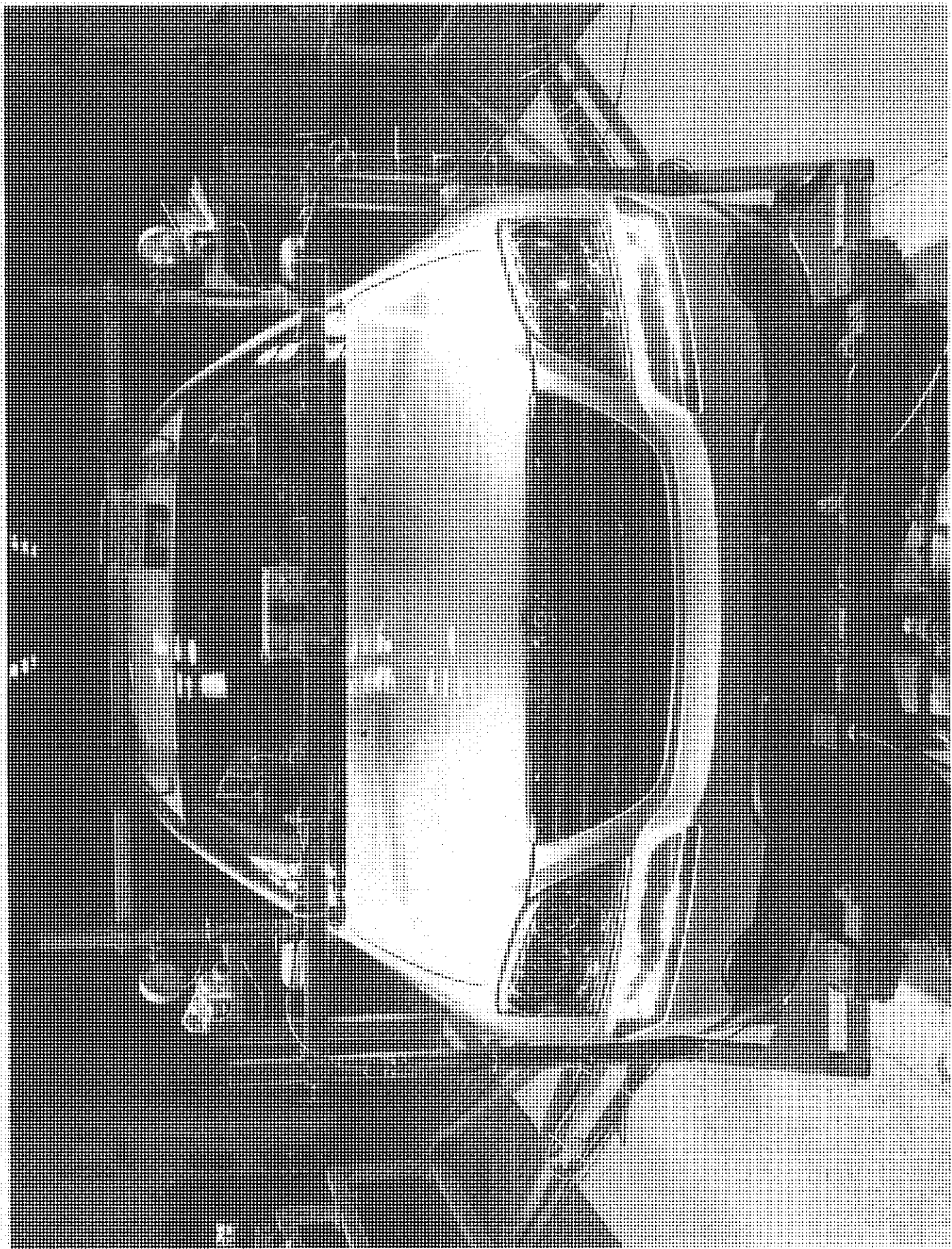


Figure A-1. Pre-Test Front View of Test Vehicle Mounted to Sled

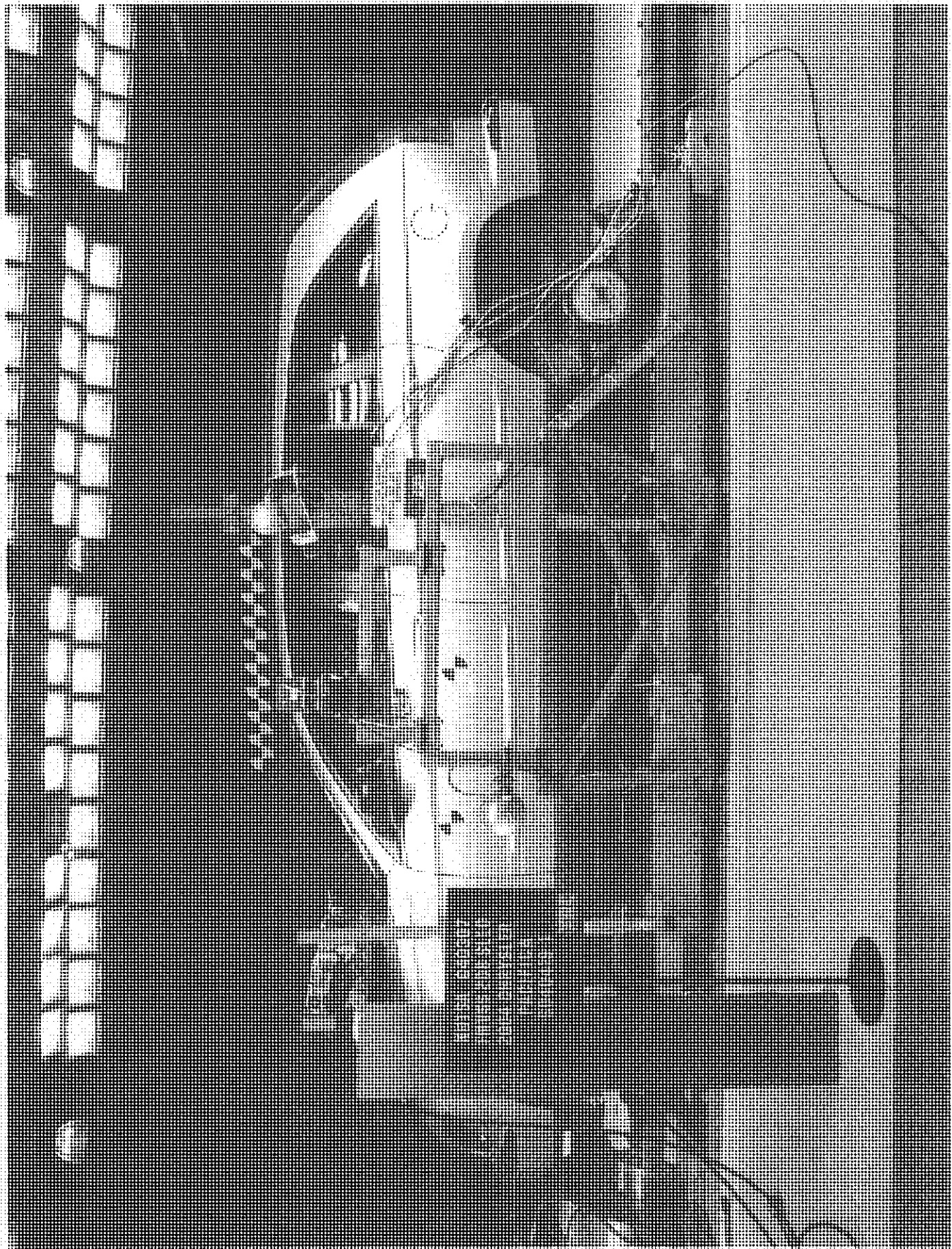


Figure A-2 Pre-Test Left Side View of Test Vehicle Mounted to Sled

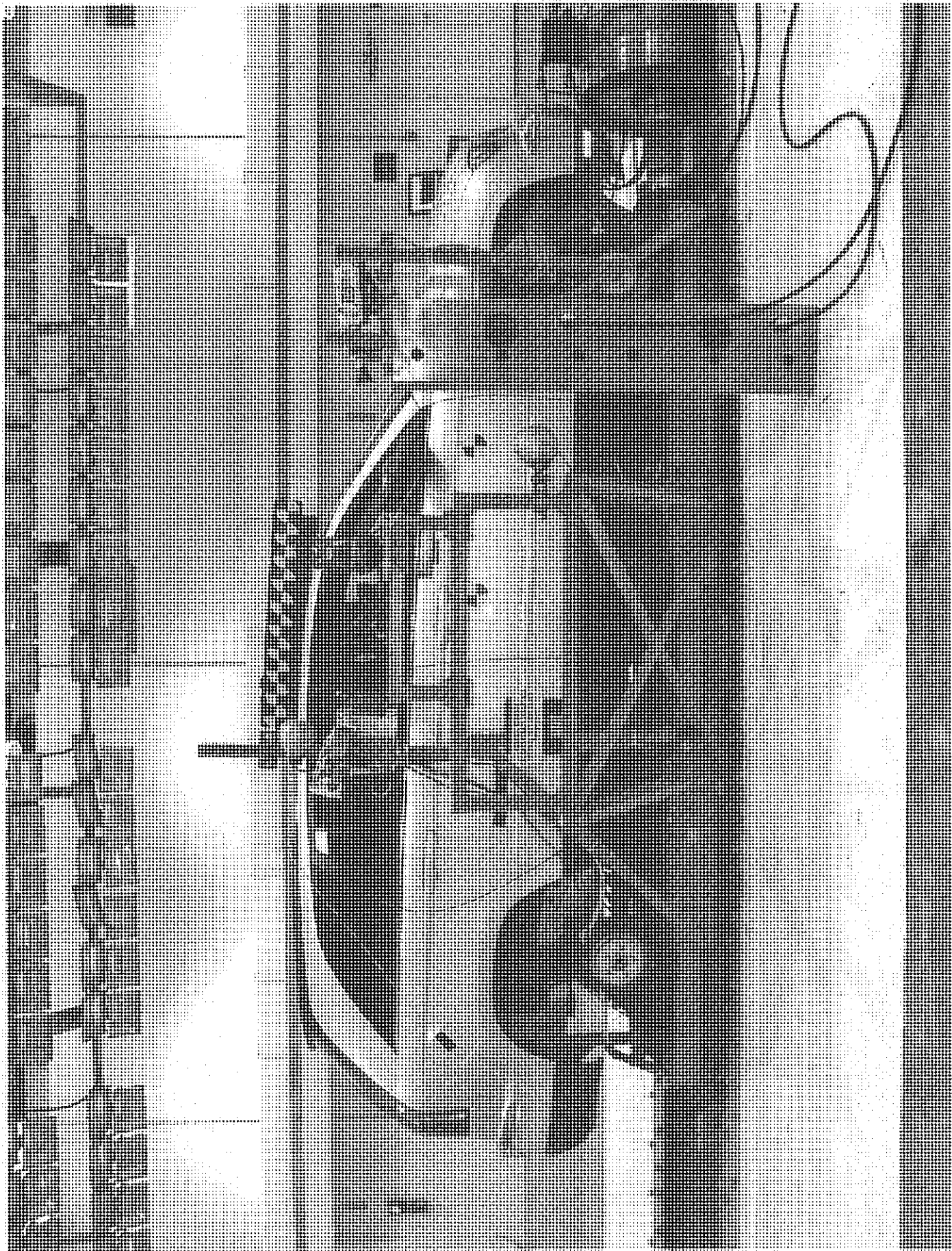


Figure A-3 Pre-Test Right Side View of Test Vehicle Mounted to Sled

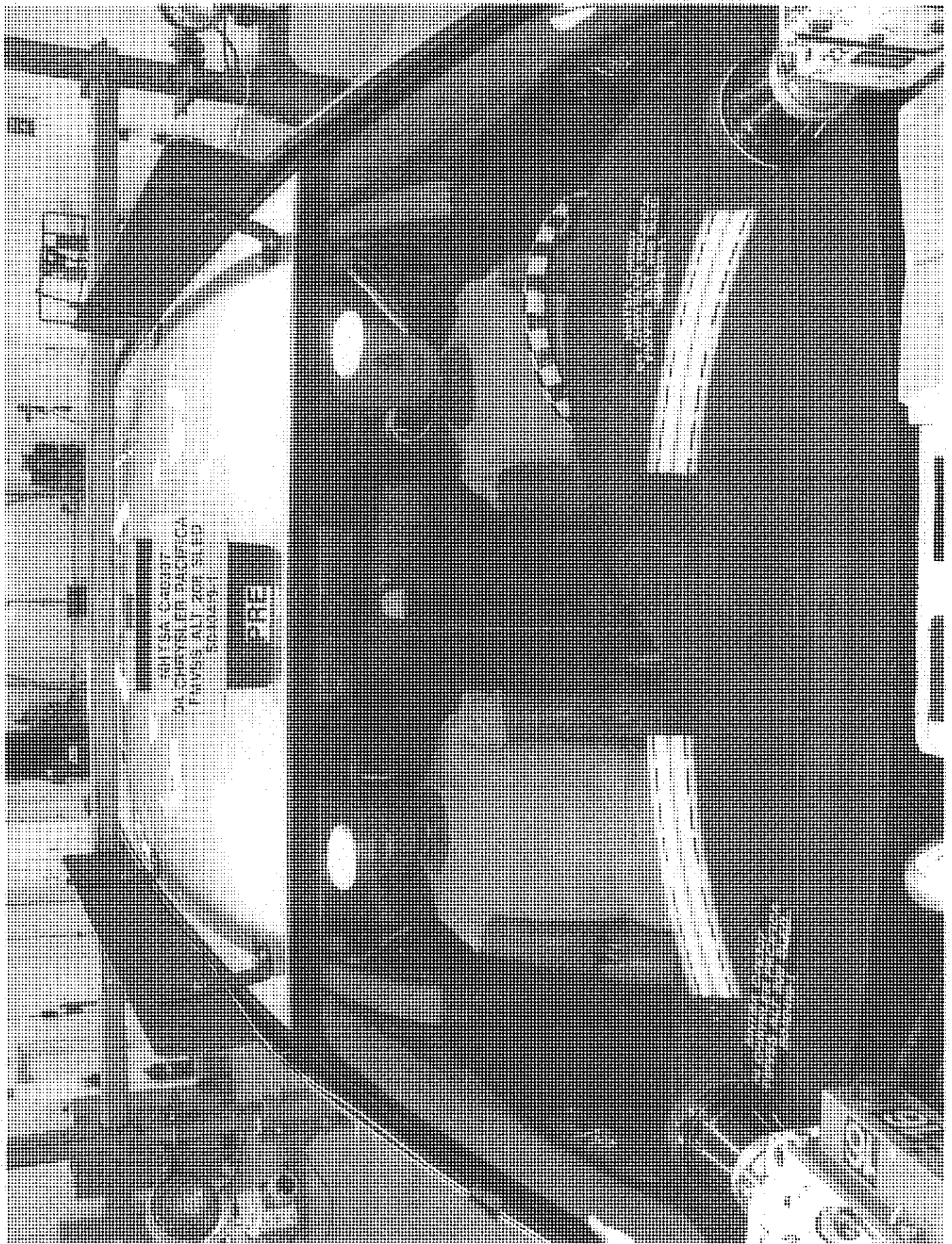


Figure A-4 Pre-Test Windshield View

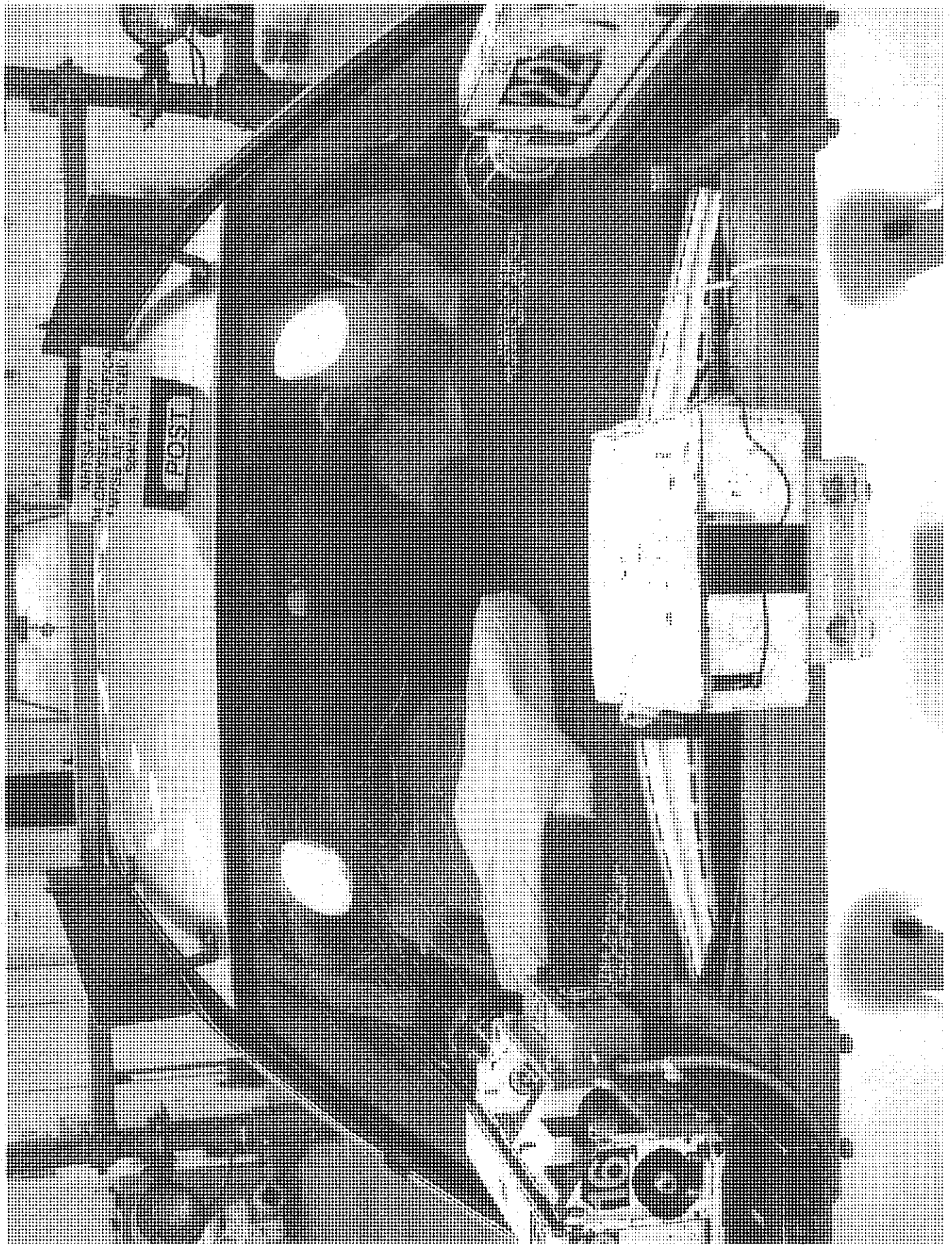


Figure A-5 Post-Test Windshield View

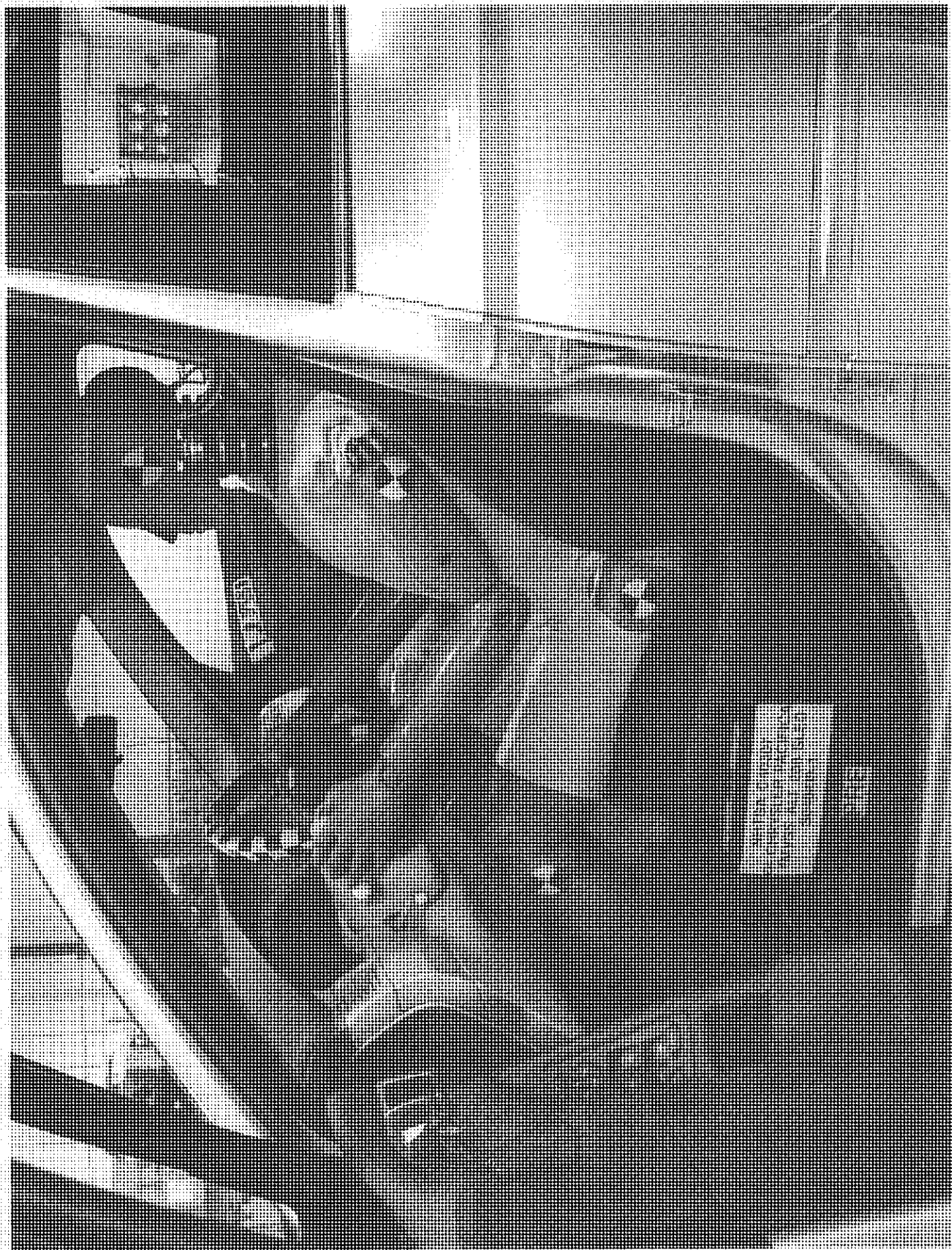


Figure A-6 Pre-Test Driver Dummy Position View with Door Open



Figure A-7 Post-Test Driver Dummy Position View with Door Open

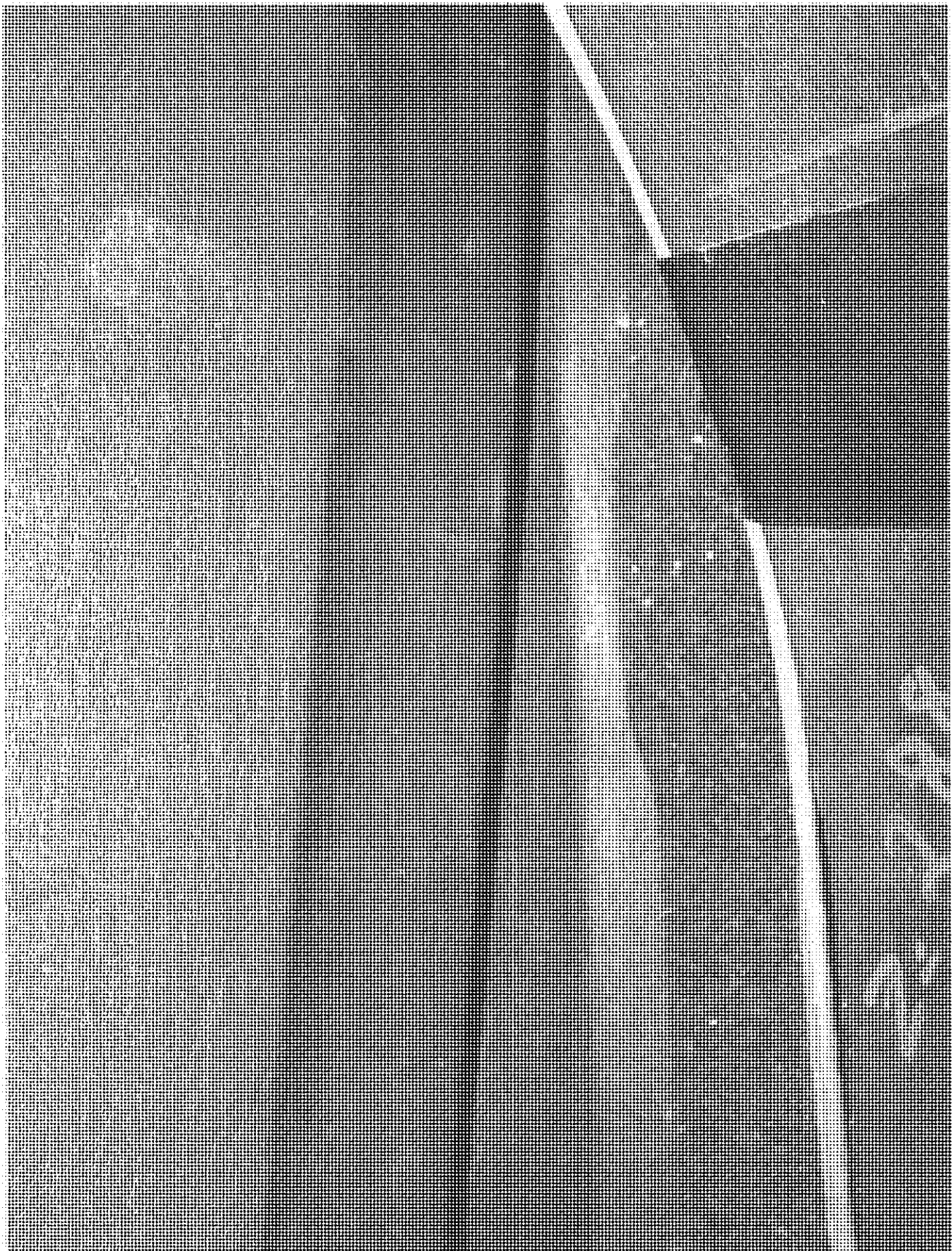


Figure A-8 Pre-Test Driver Seat Track Position View

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CHRYSLER PACIFICA
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S040419-1

POST

Figure A-9 Post-Test Driver Seat Track Position View



Figure A-10 Pre-Test Driver Dummy Position Front View

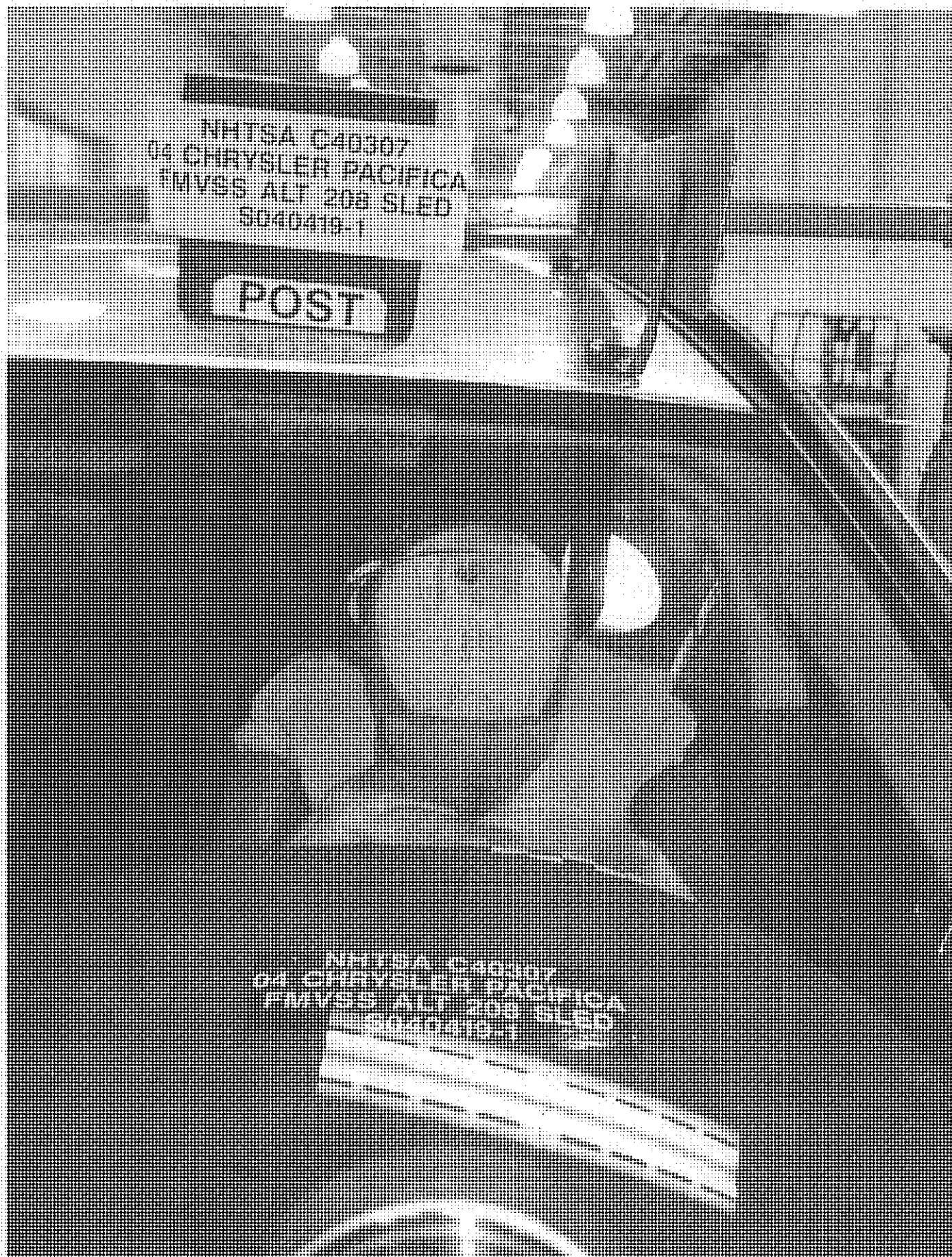


Figure A-11 Post-Test Driver Dummy Position Front View

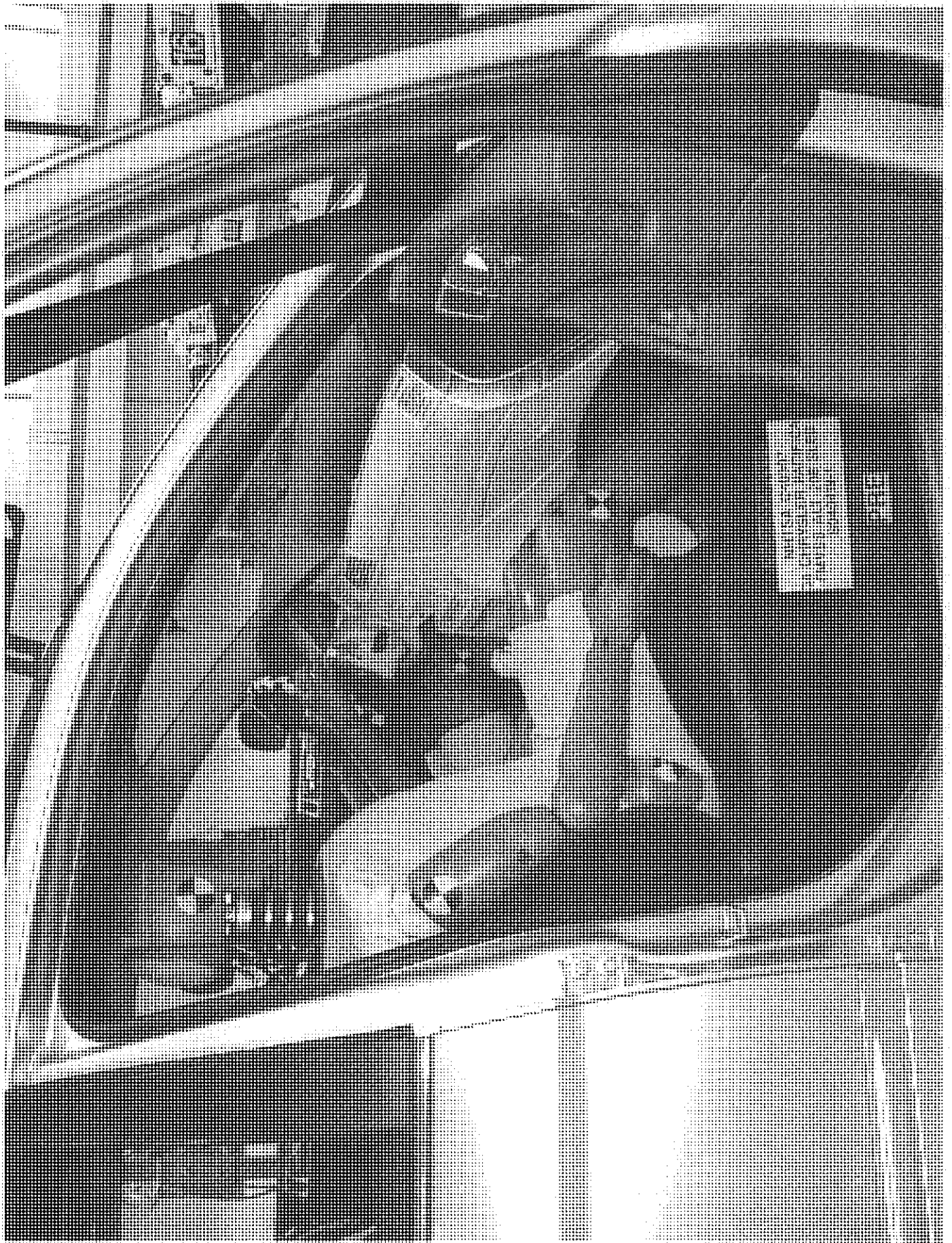


Figure A-12 Pre-Test Passenger Dummy Position View with Door Open



Figure A-13 Post-Test Passenger Dummy Position View with Door Open

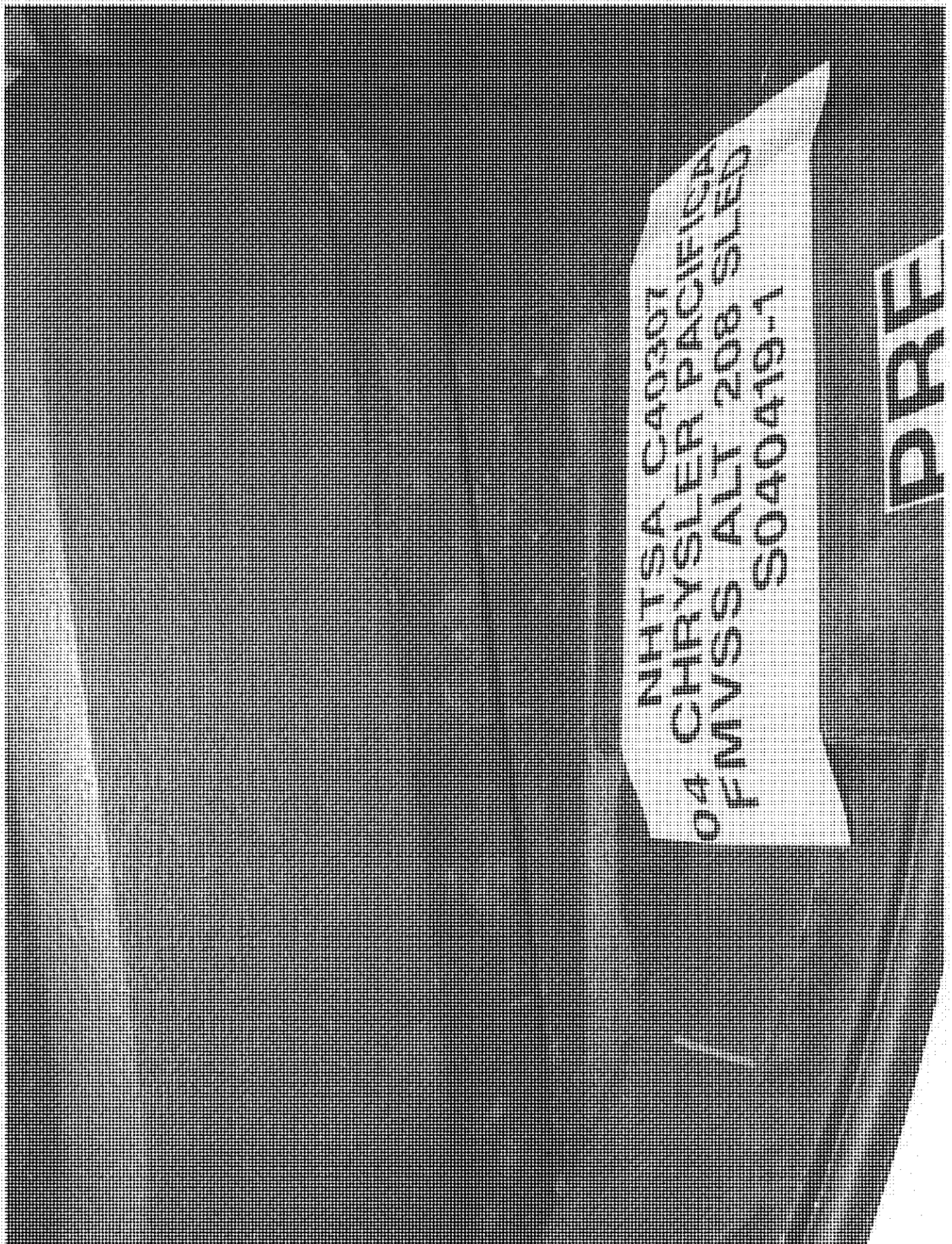


Figure A-14 Pre-Test Passenger Seat Track Position View

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POST

Figure A-15 Post-Test Passenger Seat Track Position View

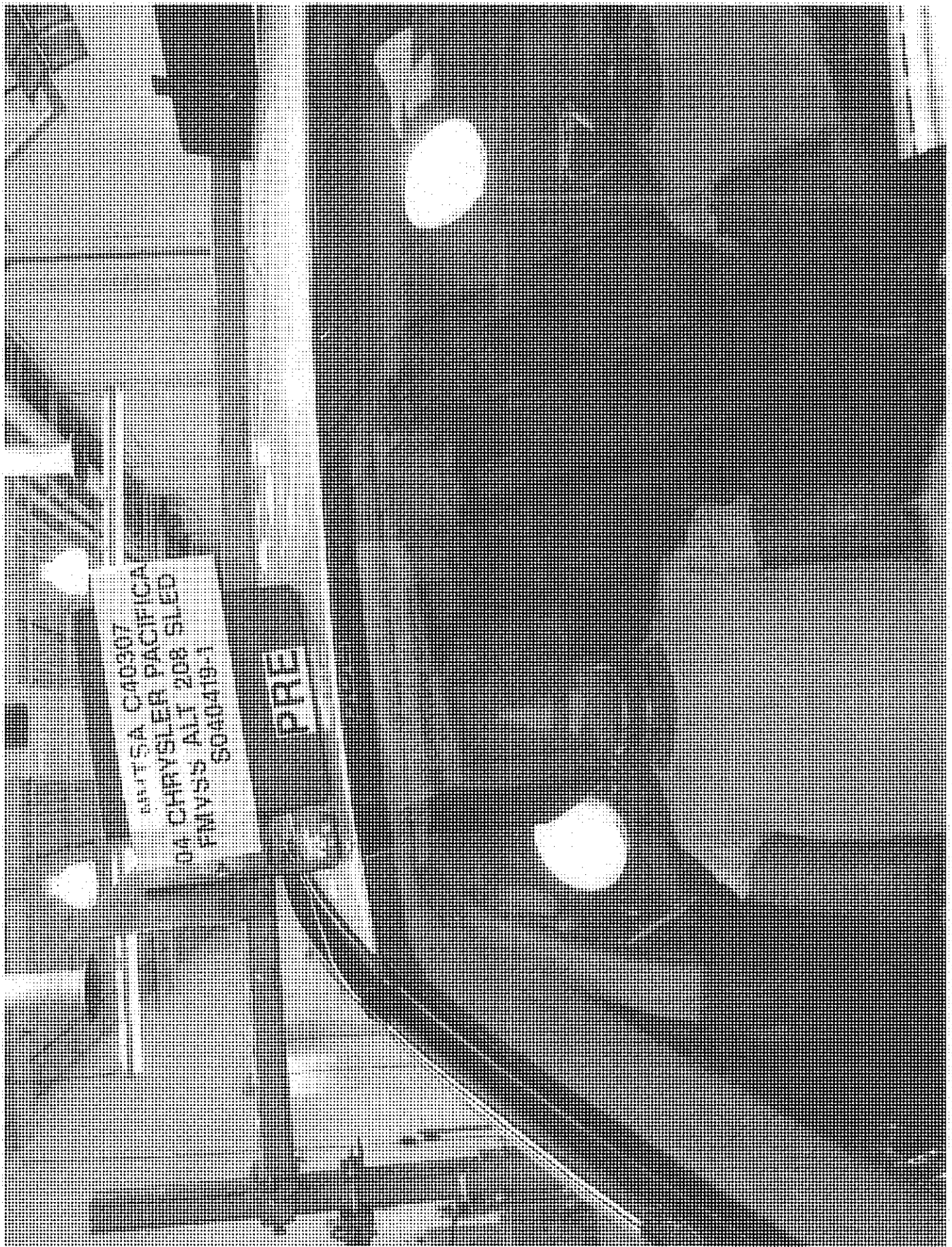


Figure A-16 Pre-Test Passenger Dummy Position Front View



Figure A-17 Post-Test Passenger Dummy Position Front View

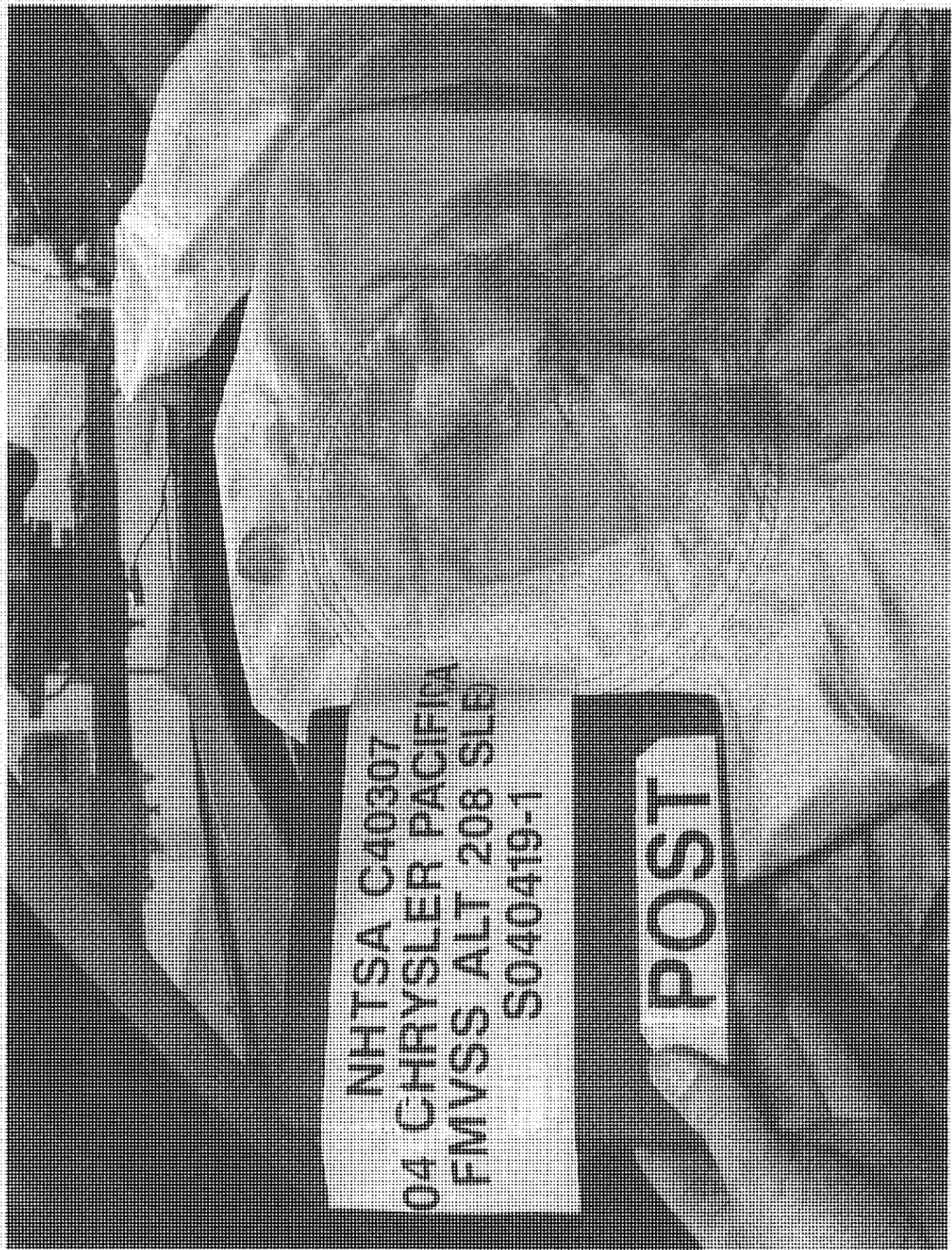


Figure A-18 Post-Test Driver Airbag View

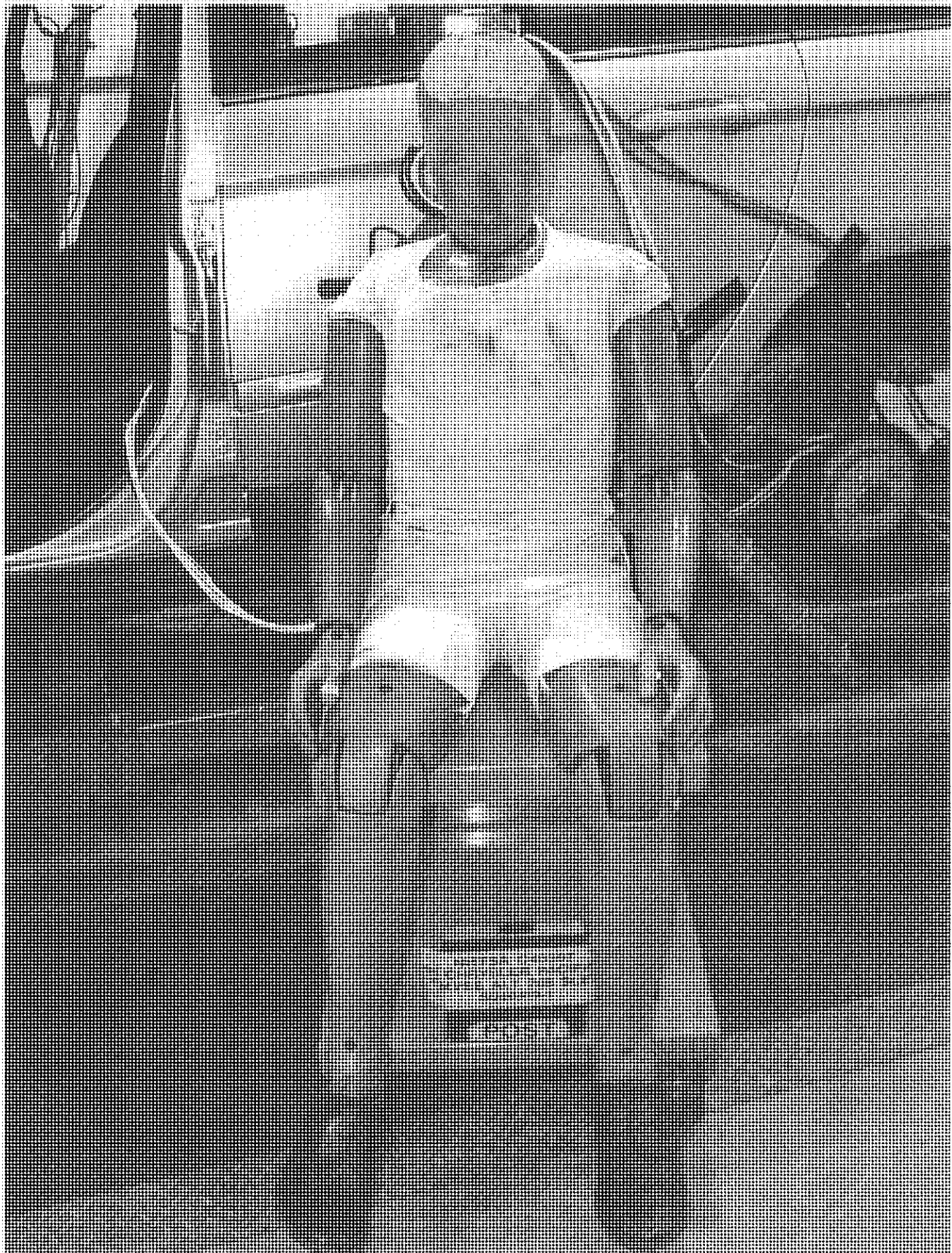


Figure A-19 Post-Test Driver Dummy Removed from Vehicle Overall View



Figure A-20 Post-Test Driver Head Contact - View 1

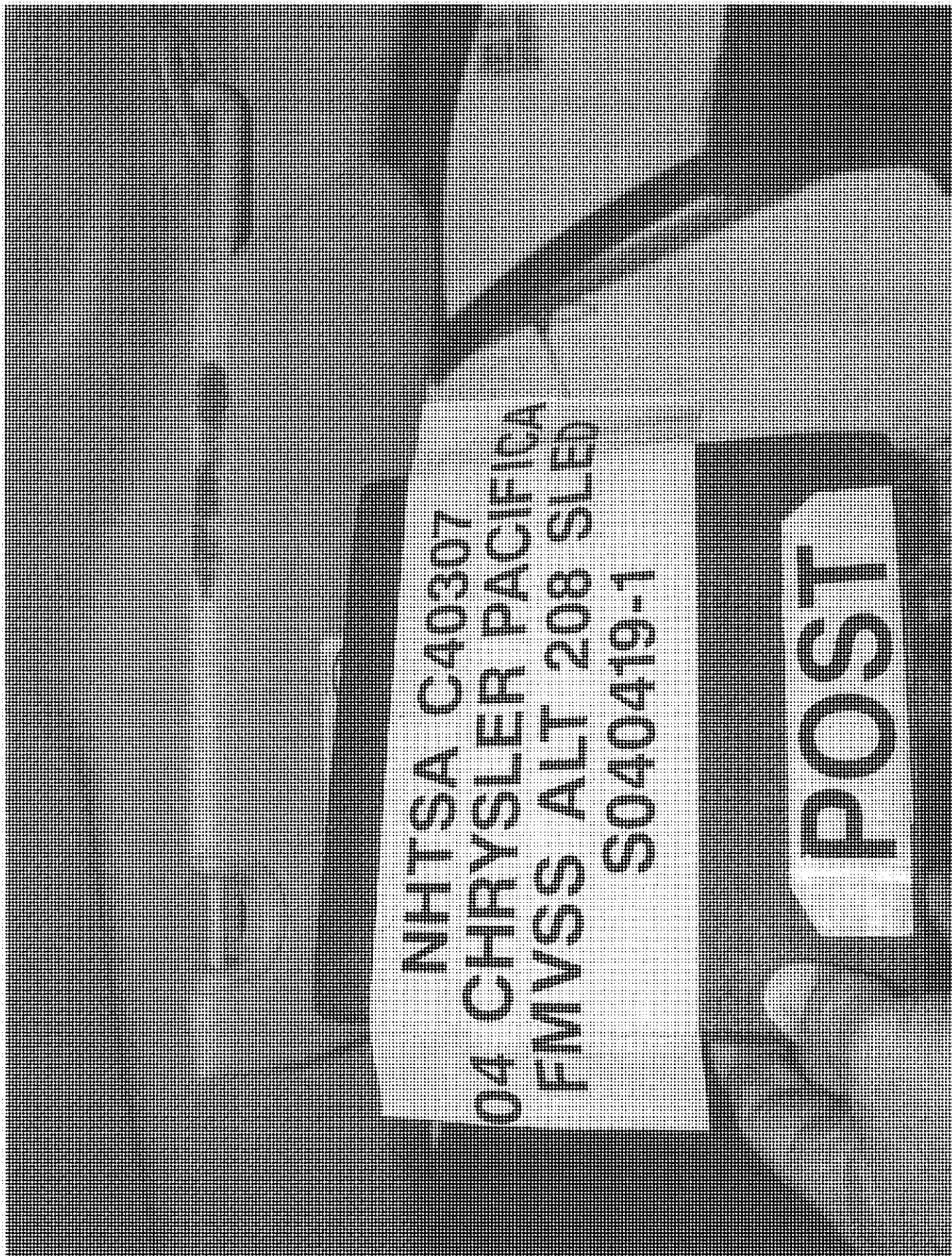


Figure A-21 Post-Test Driver Head Contact - View 2

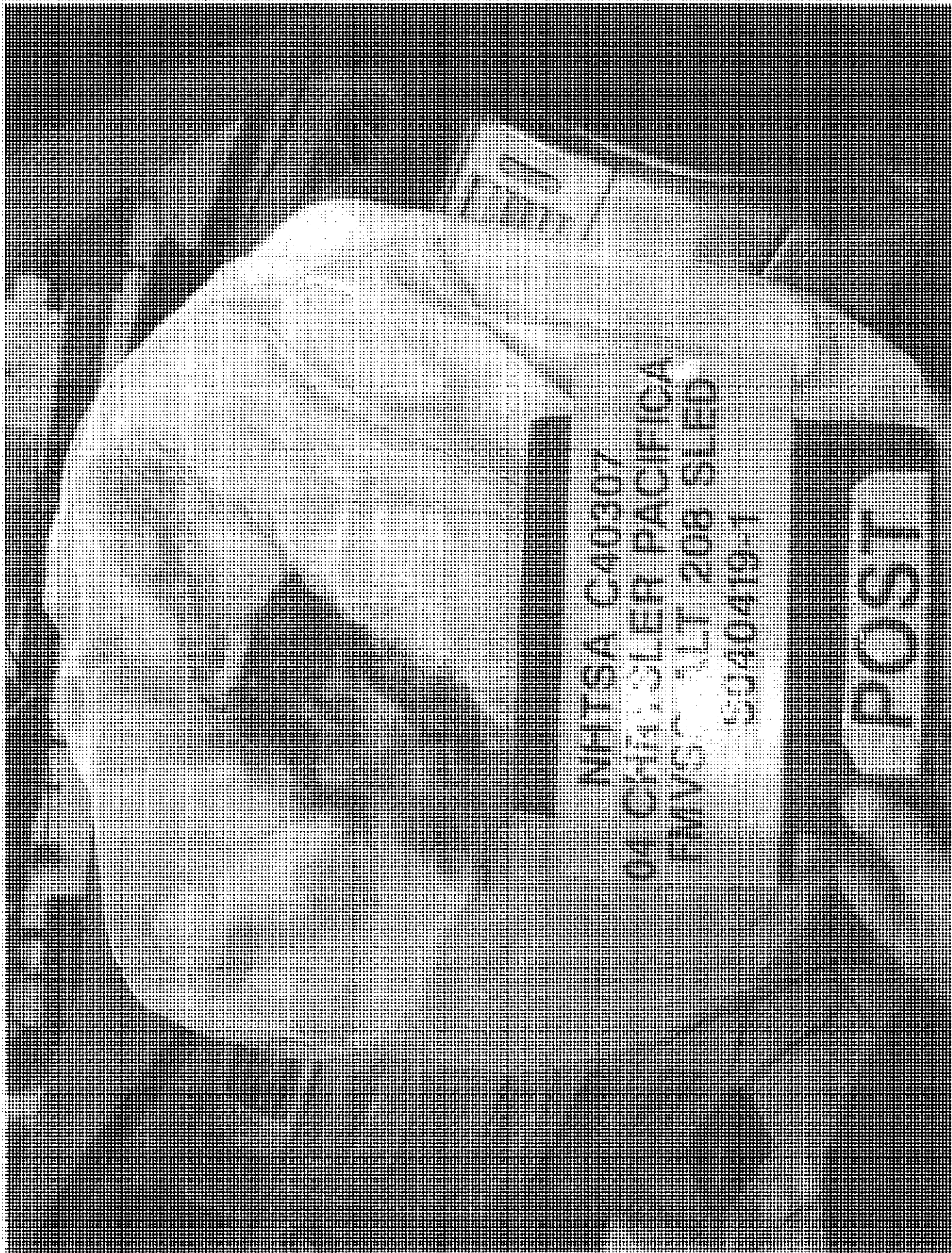


Figure A-22 Post-Test Passenger Airbag View



Figure A-23 Post-Test Passenger Dummy Removed from Vehicle Overall View

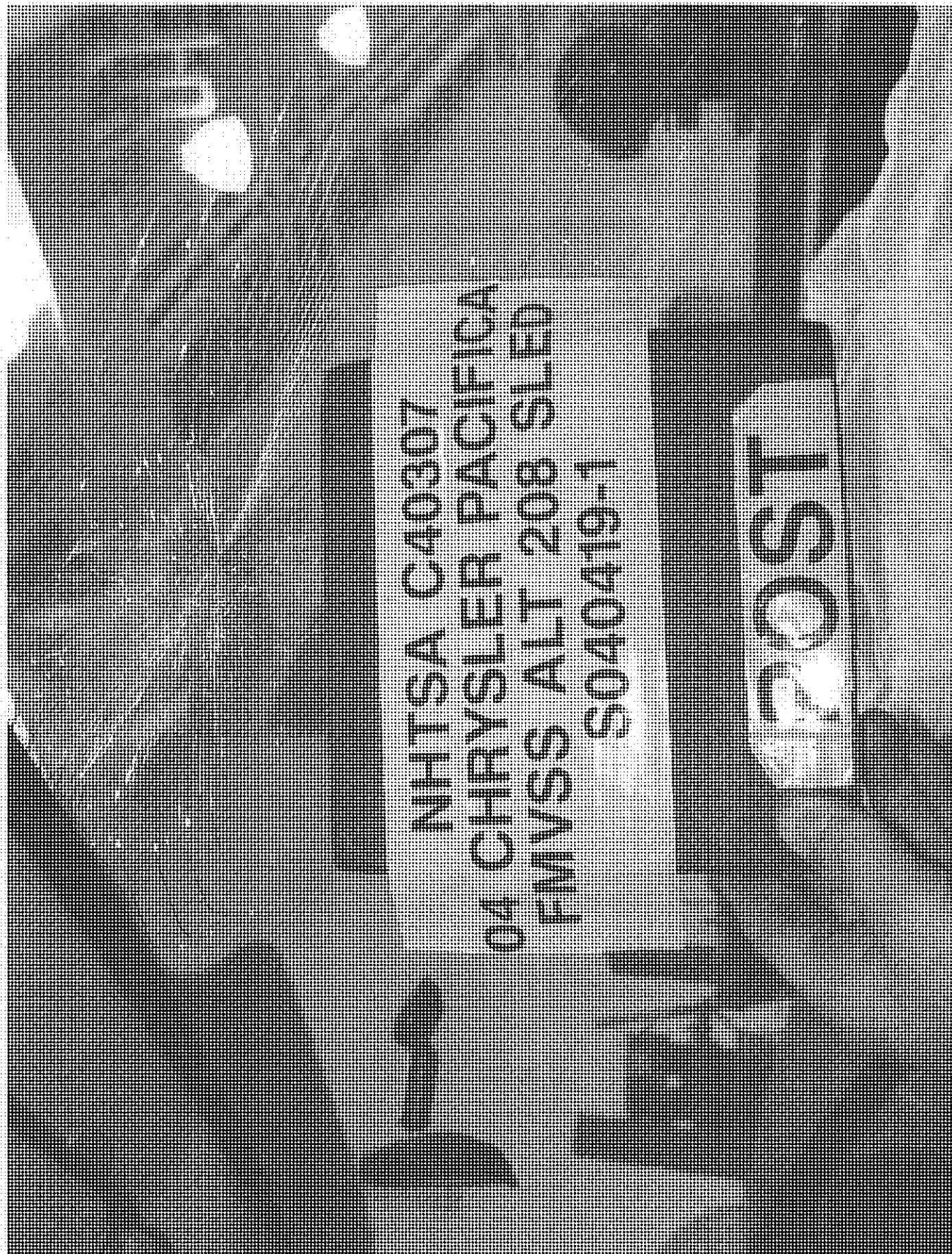


Figure A-24 Post-Test Passenger Head Contact - View 1

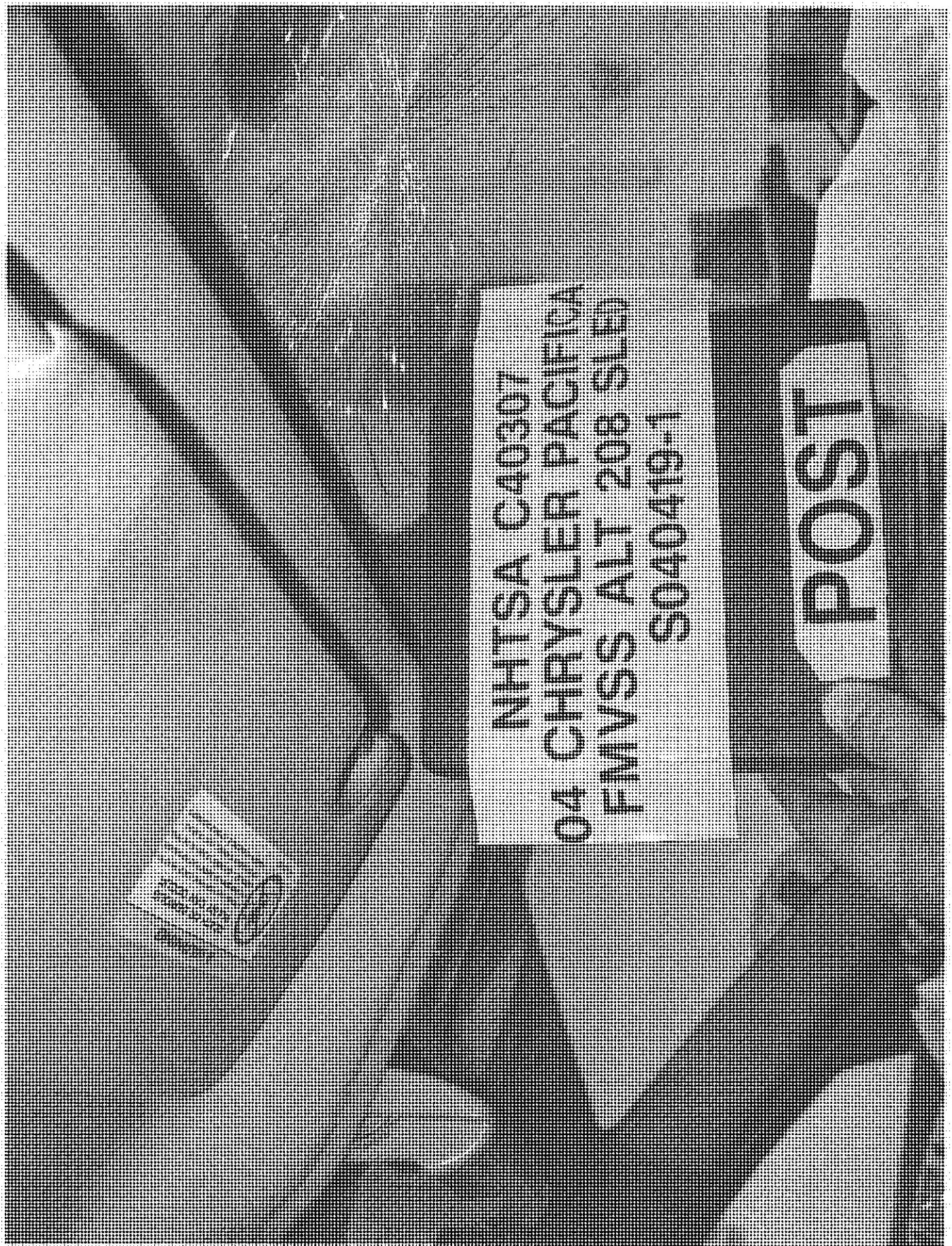


Figure A-25 Post-Test Passenger Head Contact - View 2

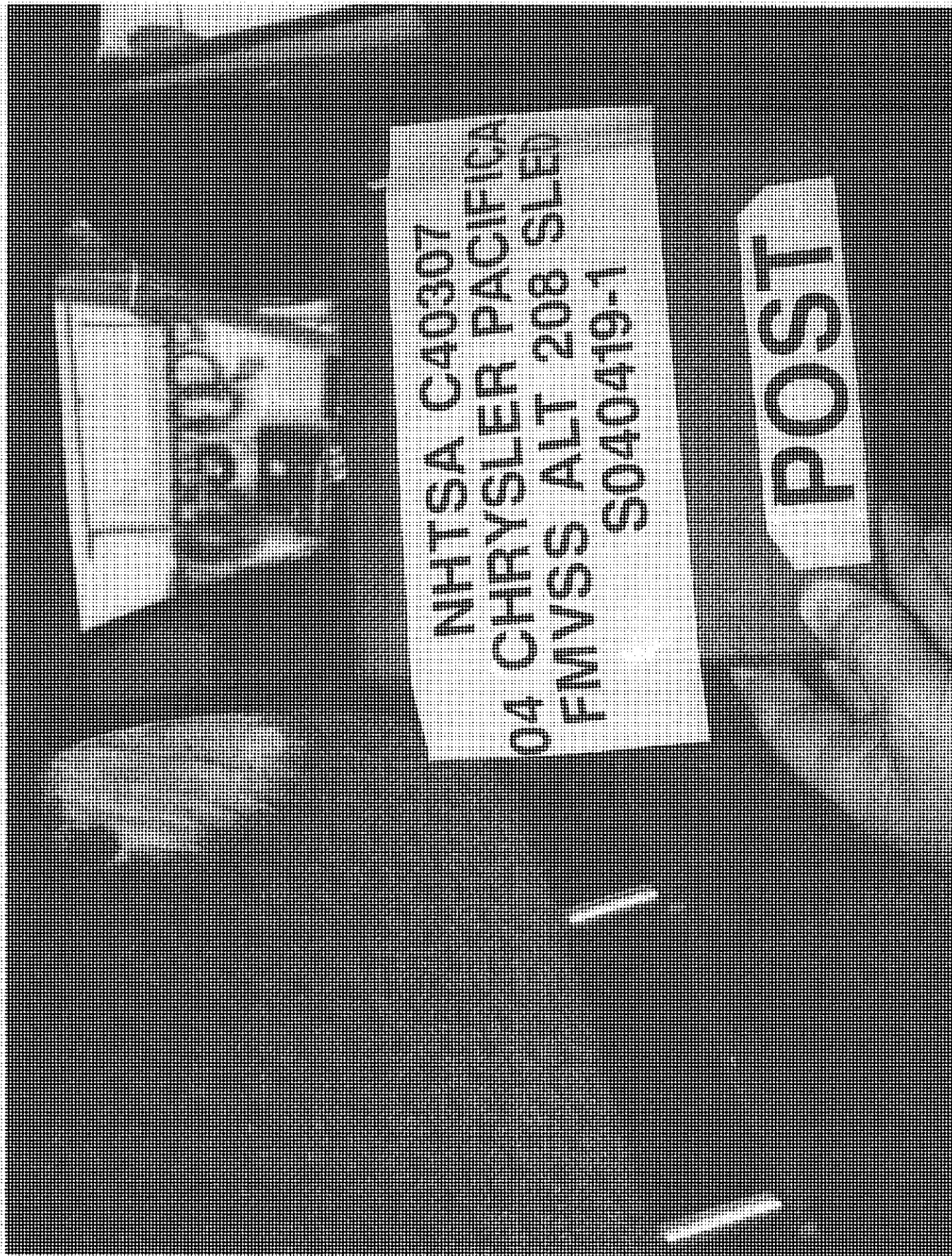


Figure A-26 Post-Test Passenger Head Contact - View 3



Figure A-27 Post-Test Passenger Glove Box View

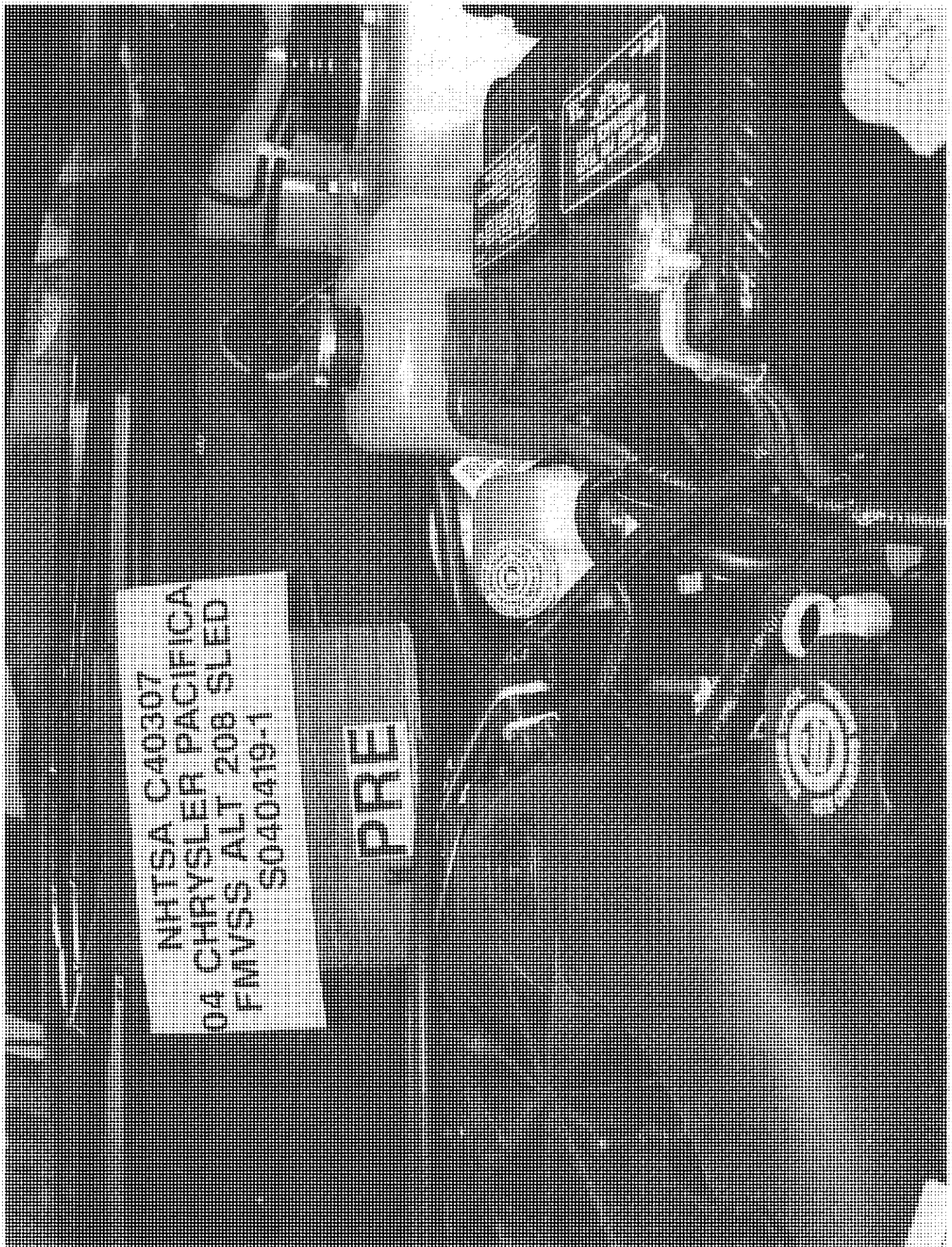
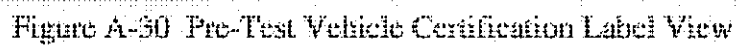


Figure A-28. Pre-Test Steering Column Linkage in Engine Compartment View



Appendix B

Data Plots

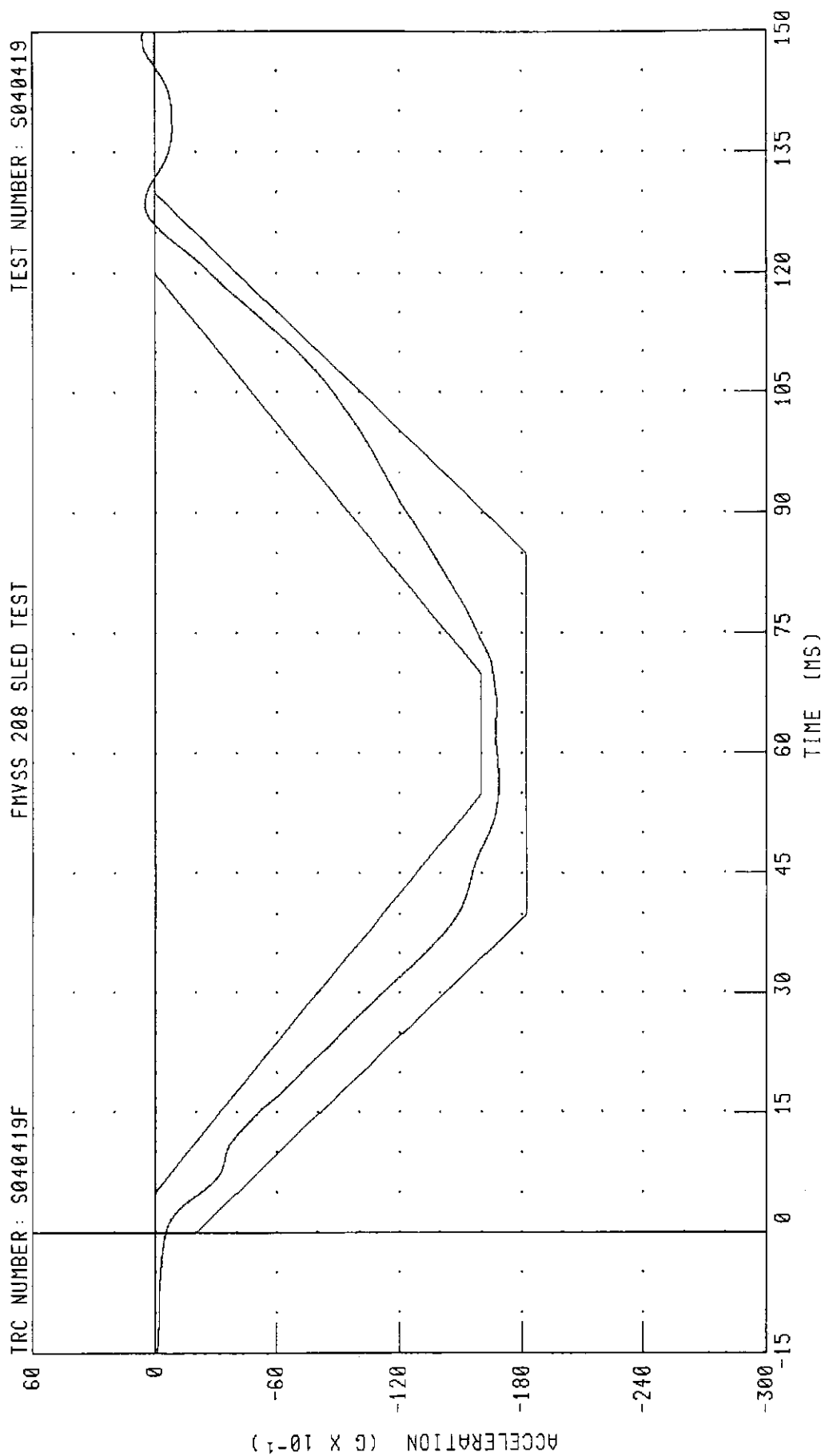
C40307 / 2004 CHRYSLER PACIFICA

SLED ACCELERATION

FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



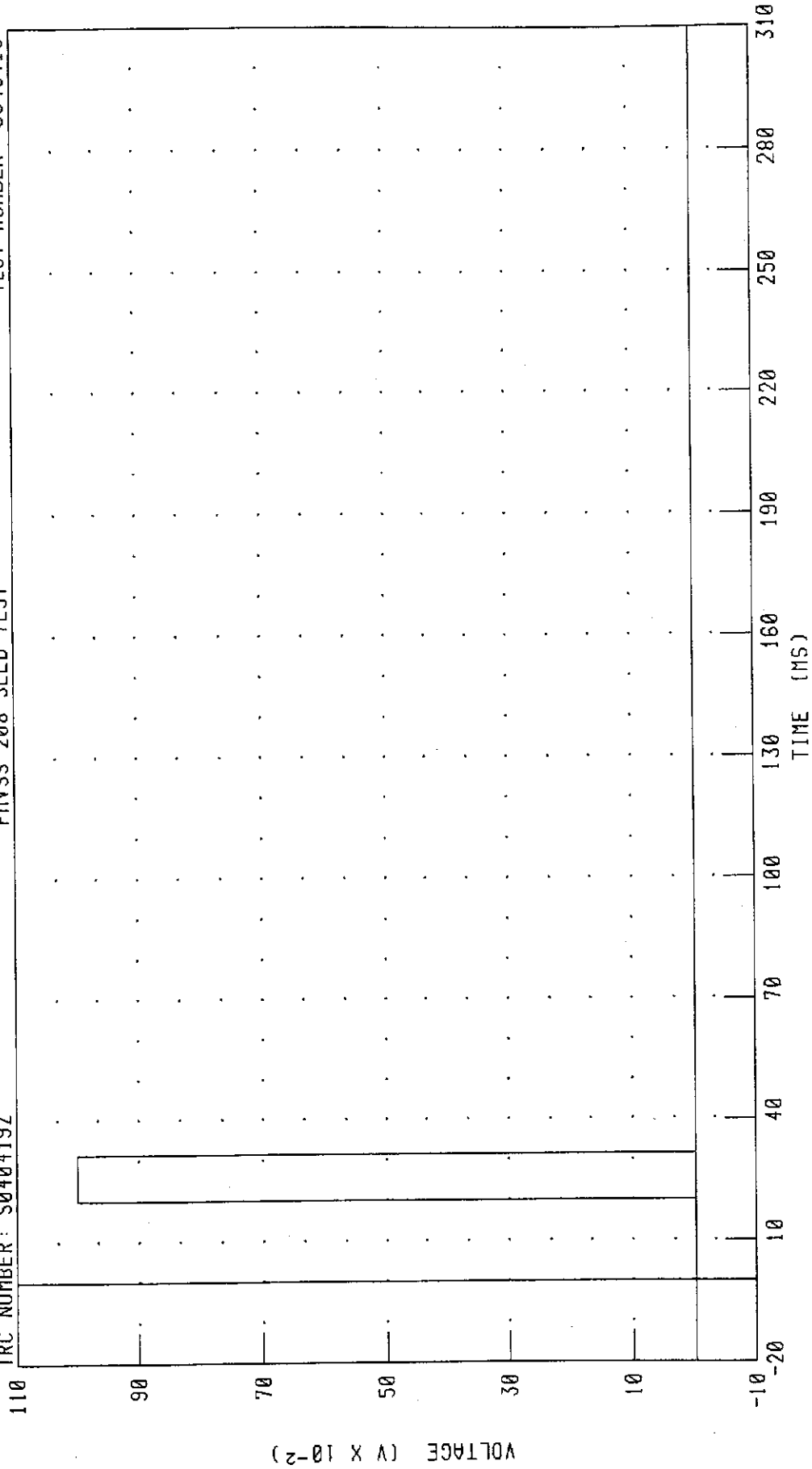
CHANNEL: SLDXG FILTER: CH CLASS 60

PEAK DATA: 0.61 G @ 149.20 MS, -16.86 G @ 56.40 MS

C40307 / 2004 CHRYSLER PACIFICA
DRIVER PRIMARY AIRBAG EVENT
FMVSS 208 SLED TEST

TEST NUMBER: S040419

TRC NUMBER: S040419Z



CHANNEL: DABET1 FILTER: CH. CLASS 1000

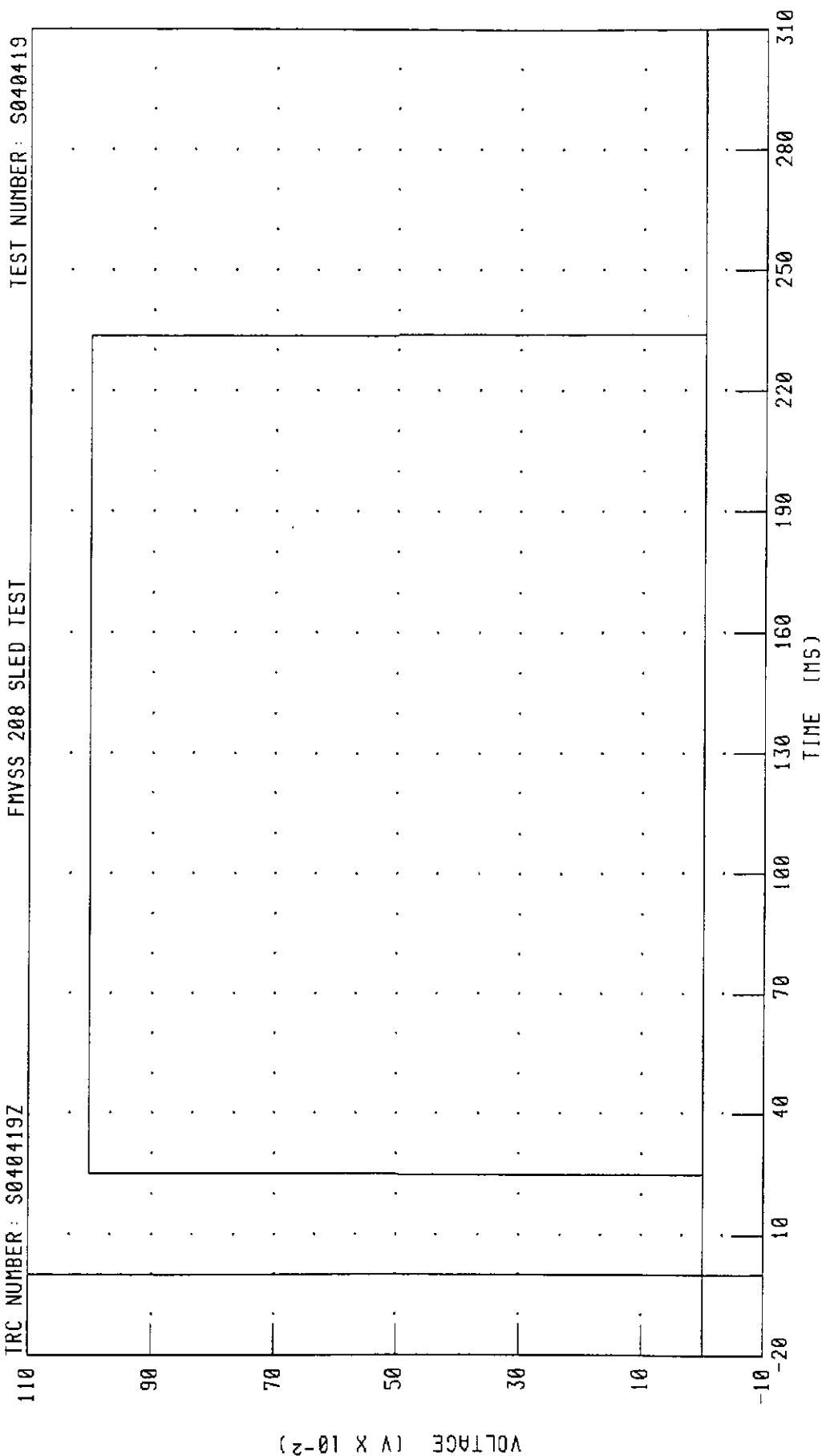
PEAK DATA: 1.00 V @ 20.16 MS; 0.00 V @ -20.00 MS

C40307 / 2004 CHRYSLER PACIFICA
DRIVER SECONDARY AIRBAG EVENT

TRC NUMBER: S040419Z

FMVSS 208 SLED TEST

TEST NUMBER: S040419



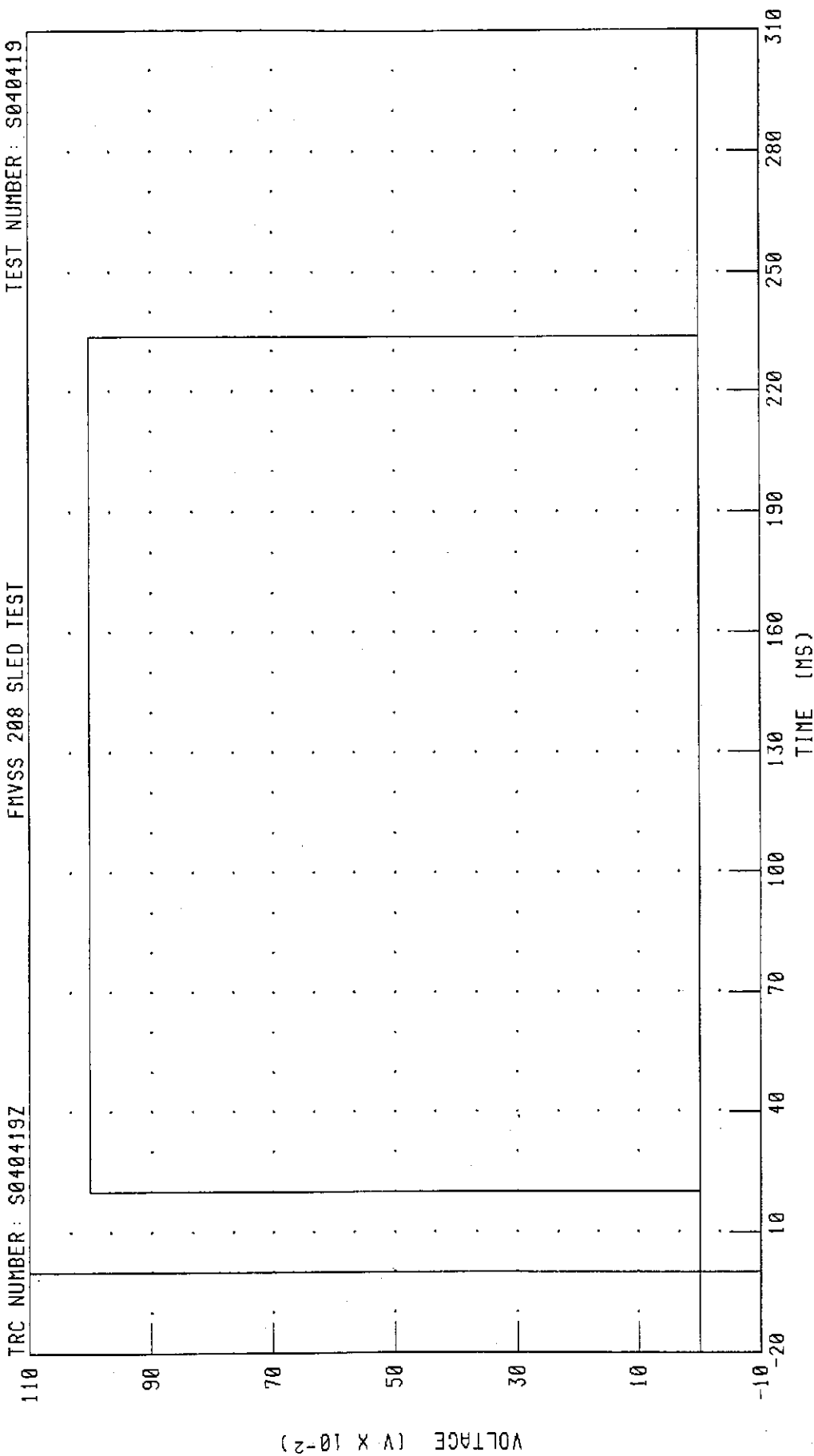
CHANNEL: DABET2 FILTER: CH. CLASS 1000

PEAK DATA: 1.00 V @ 25.12 MS; 0.00 V @ -20.00 MS

C40307 / 2004 CHRYSLER PACIFICA
PASSENGER PRIMARY AIRBAG EVENT
FMVSS 208 SLED TEST

TRC NUMBER: S040419Z

TEST NUMBER: S040419



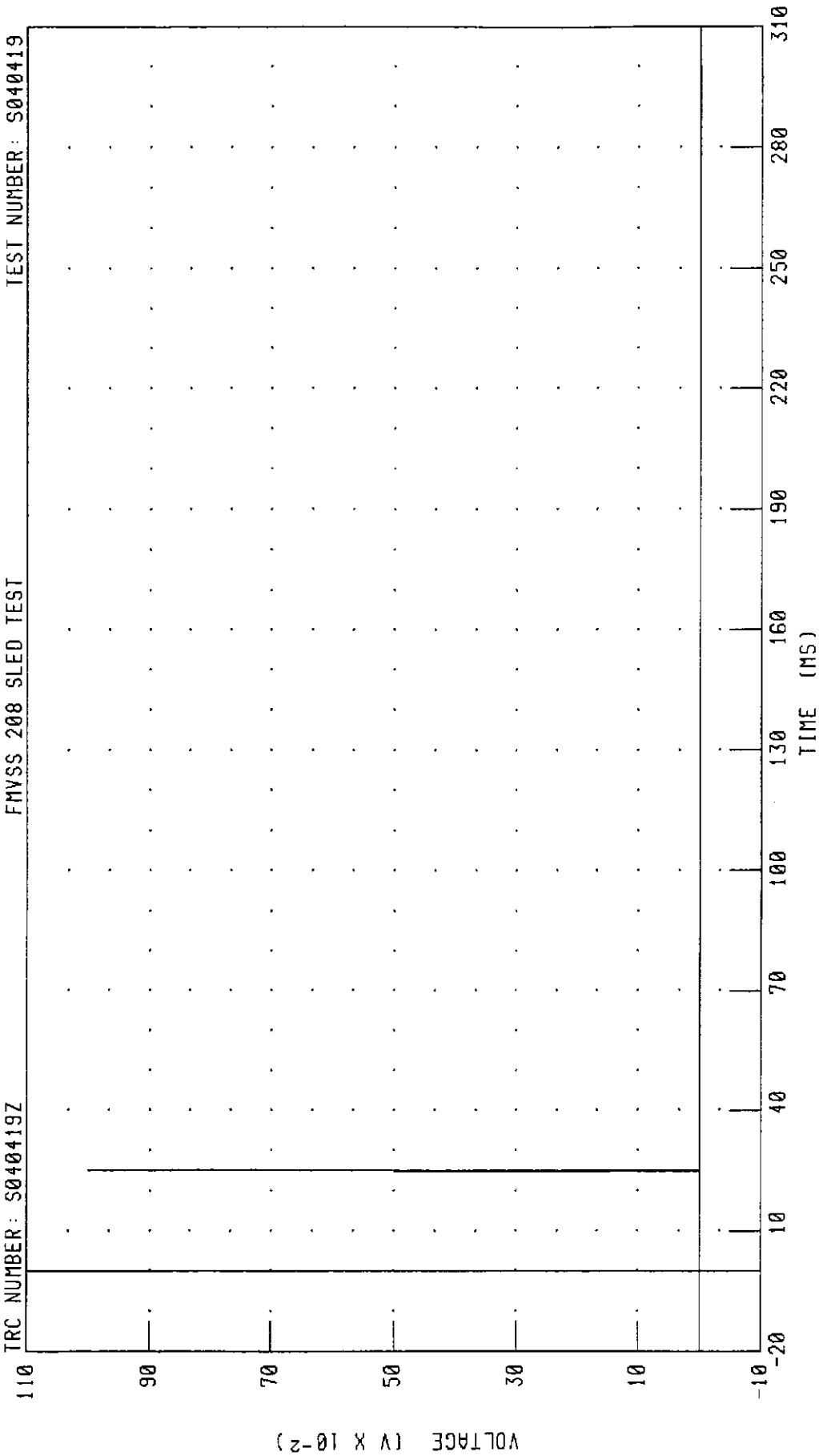
CHANNEL: PABET1 FILTER: CH. CLASS 1000

PEAK DATA: 1.00 V @ 20.16 MS; 0.00 V @ -20.00 MS

C40307 / 2004 CHRYSLER PACIFICA
PASSENGER SECONDARY AIRBAG EVENT
FMVSS 208 SLED TEST

TRC NUMBER: S040419Z

TEST NUMBER: S040419



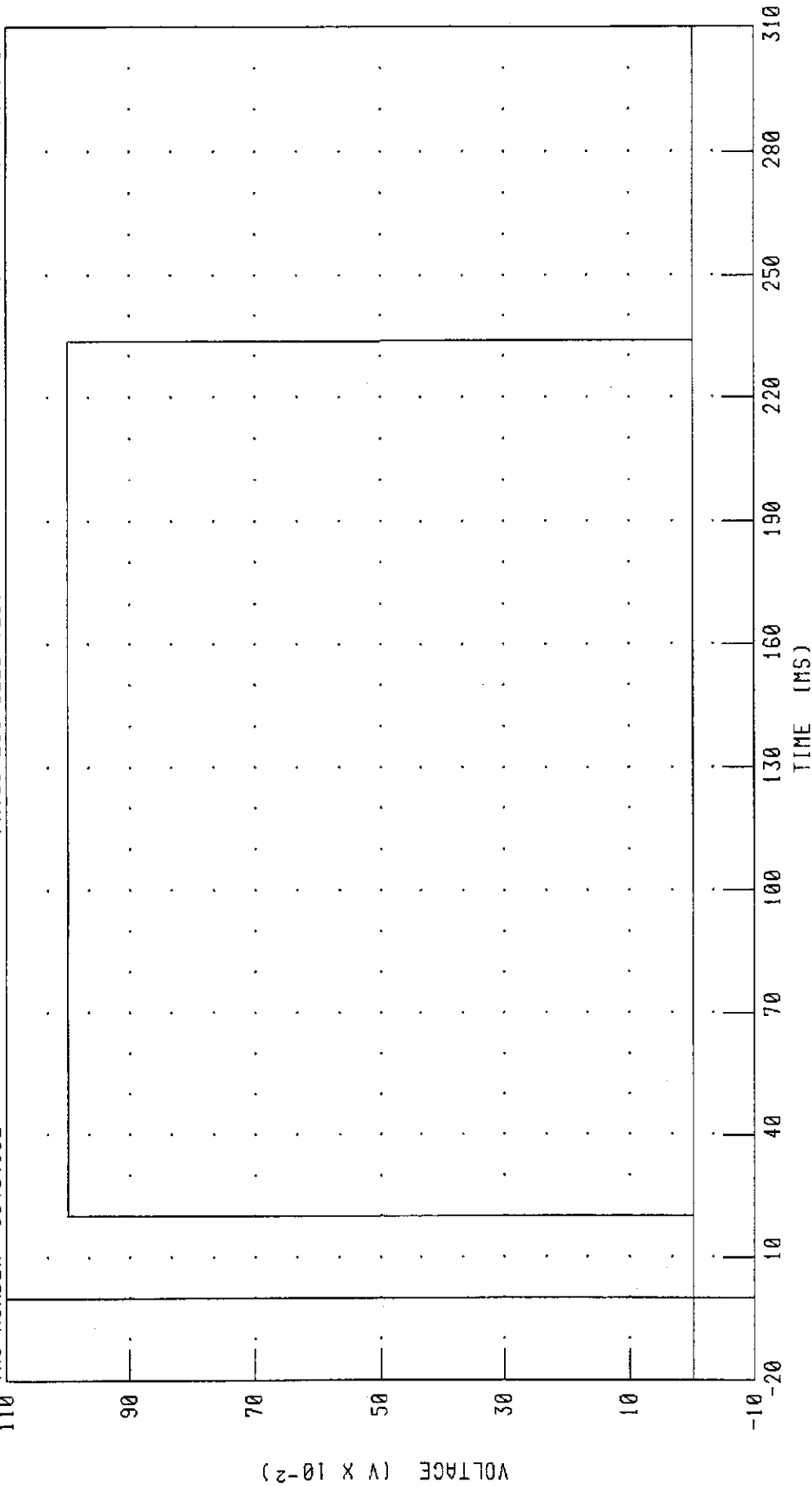
CHANNEL: PABET2 FILTER: CH. CLASS 1000

PEAK DATA: 1.00 V @ 25.12 MS; 0.00 V @ -20.00 MS

C40307 / 2004 CHRYSLER PACIFICA
 DRIVER KNEE BOLSTER AIRBAG EVENT
 FMVSS 208 SLED TEST

TRC NUMBER: S040419Z

TEST NUMBER: S040419



CHANNEL: ABEVT5 FILTER: CH. CLASS 1000

PEAK DATA: 1.00 V @ 20.16 MS; 0.00 V @ -20.00 MS

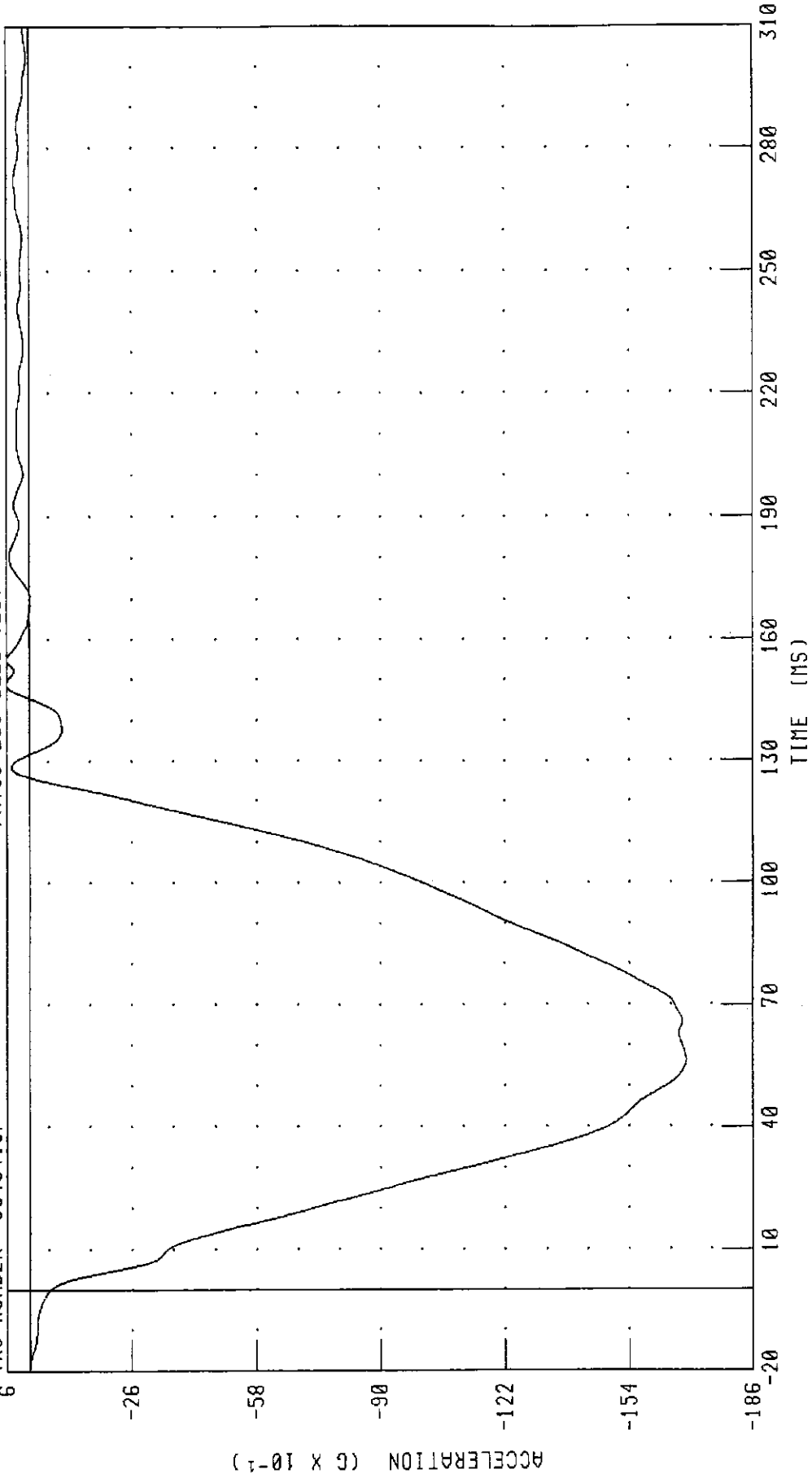
D40307 / 2004 CHRYSLER PACIFICA

SLED ACCELERATION

FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



CHANNEL: SLDXC FILTER: CH. CLASS 60

PEAK DATA: 0.62 G @ 155.12 MS; -16.86 G @ 56.40 MS

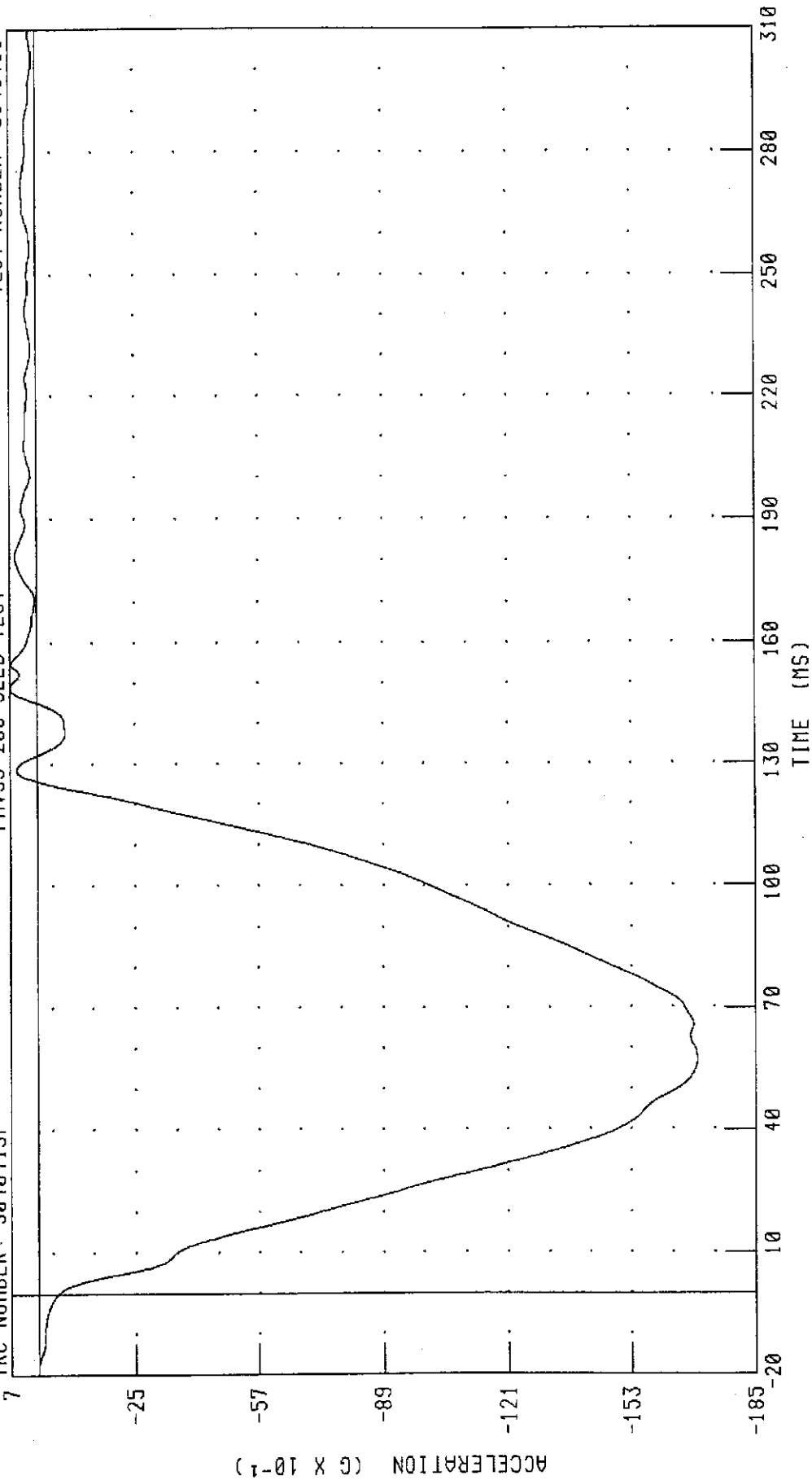
C40307 / 2004 CHRYSLER PACIFICA

SLED ACCELERATION - BACKUP

FMVSS 208 SLED TEST

TRC NUMBER: S040419F

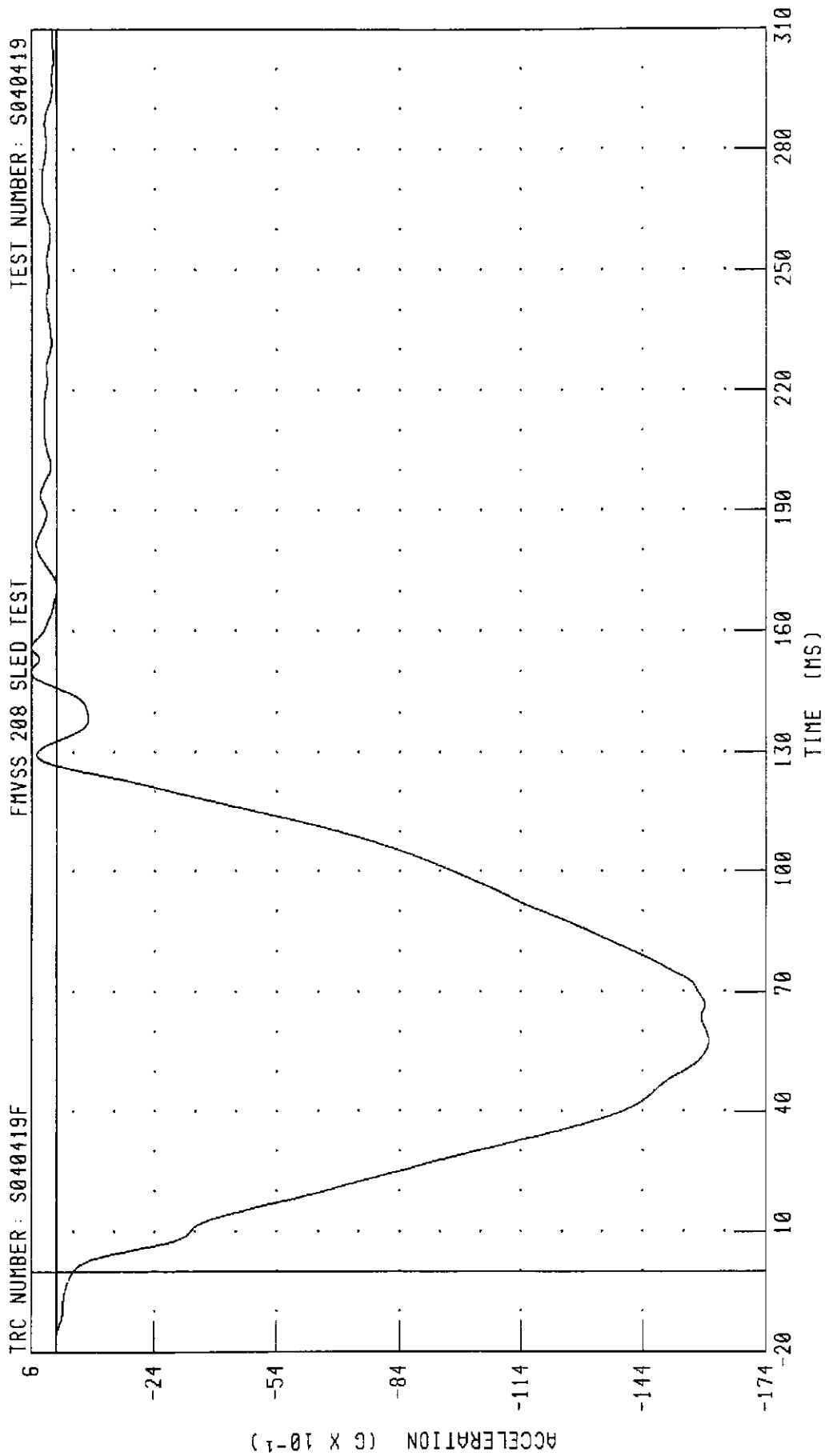
TEST NUMBER: S040419



CHANNEL: SLDXGR FILTER: CH. CLASS 60

PEAK DATA: 0.69 G @ 149.04 MS; -16.99 G @ 56.88 MS

C40307 / 2004 CHRYSLER PACIFICA
SLED ACCELERATION FOR TIMING CIRCUIT



CHANNEL: SLDXGT FILTER: CH. CLASS 60

PEAK DATA: 0.61 G @ 156.16 MS, -16.00 G @ 57.52 MS

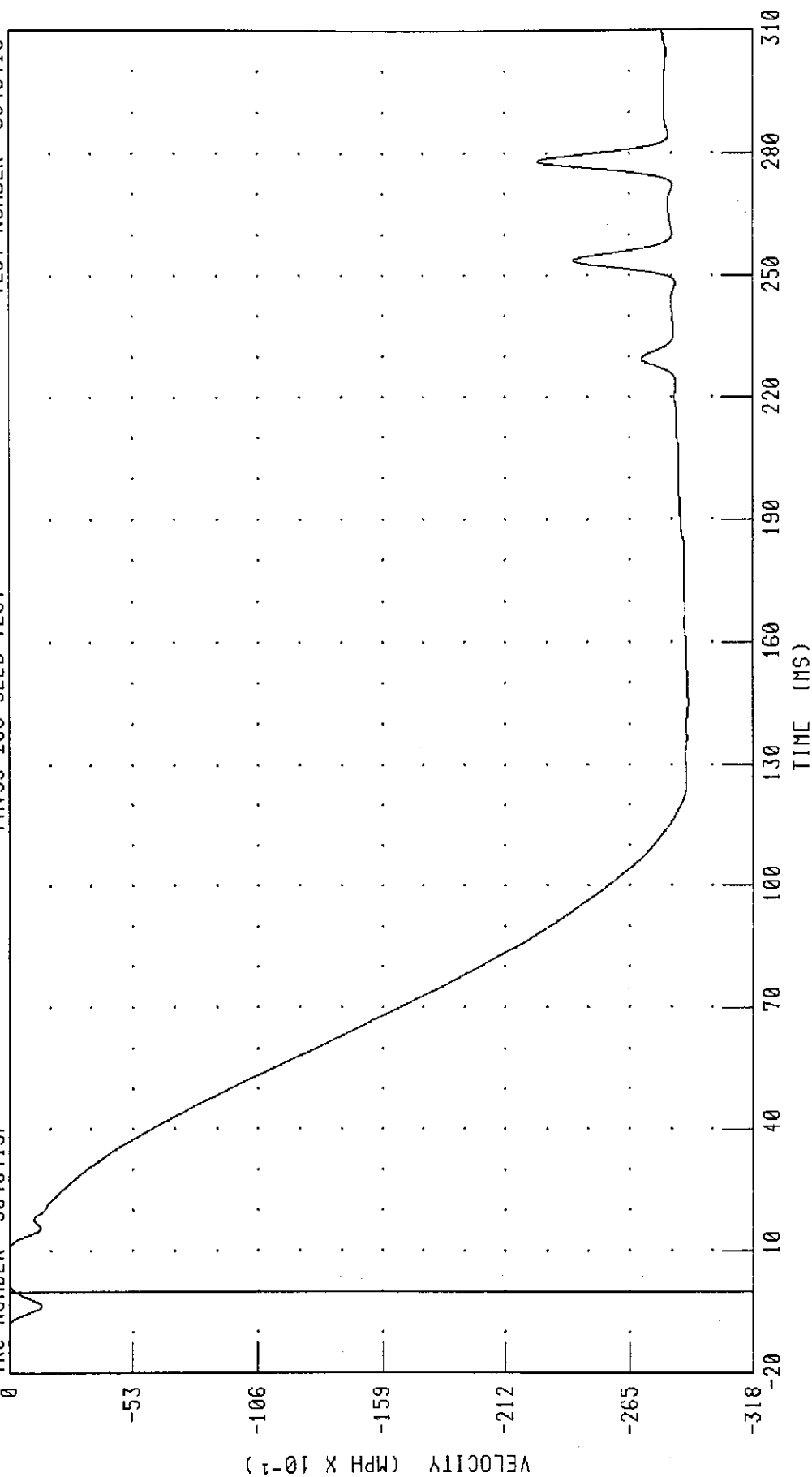
C40307 / 2004 CHRYSLER PACIFICA

MEASURED VELOCITY TRAP

FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



CHANNEL: SLDXY FILTER: CH. CLASS 60

PEAK DATA: 0.06 MPH @ -9.20 MS; -28.96 MPH @ 145.20 MS

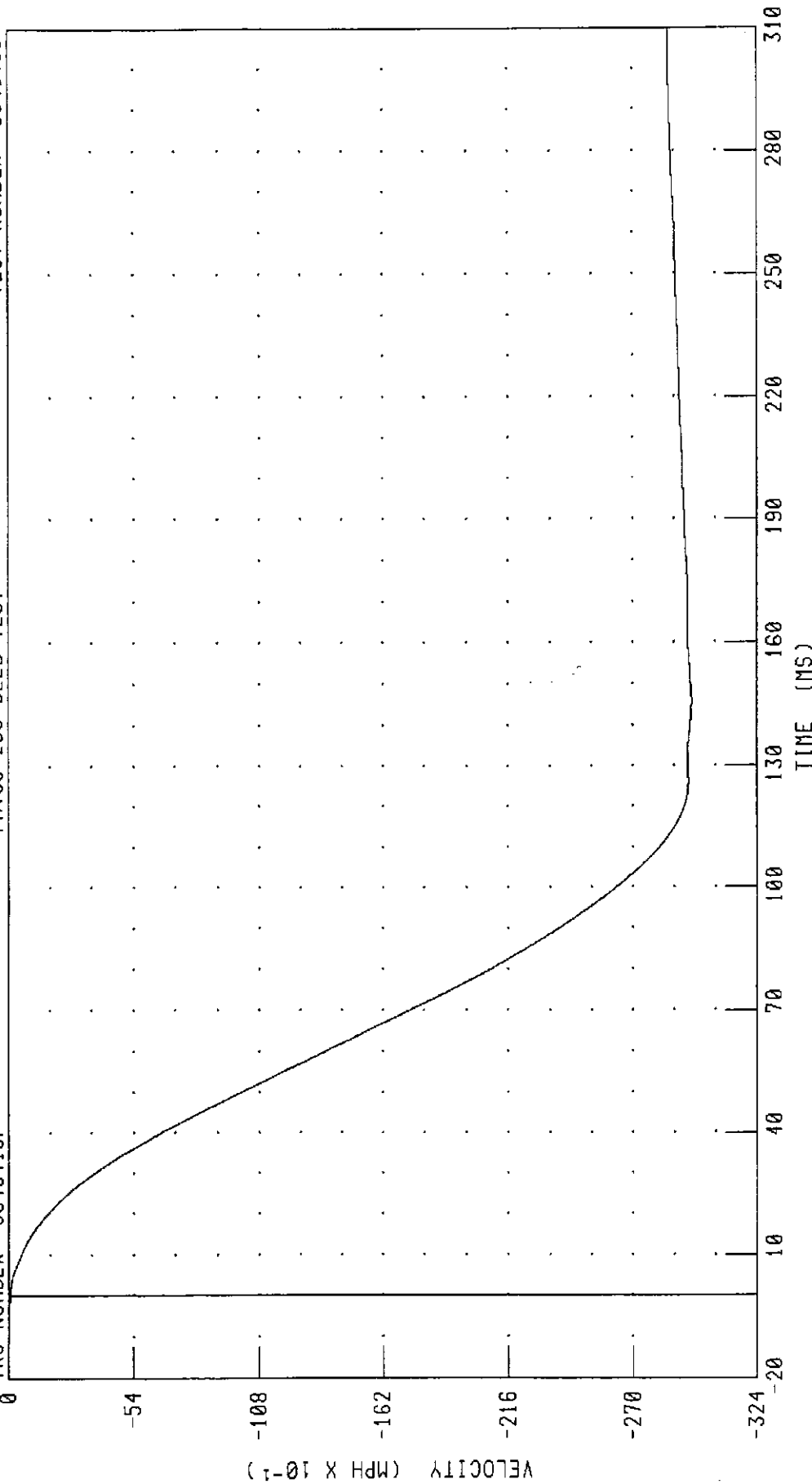
C40307 / 2004 CHRYSLER PACIFICA

SLED VELOCITY (INTEGRATED)

FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



TIME (MS)

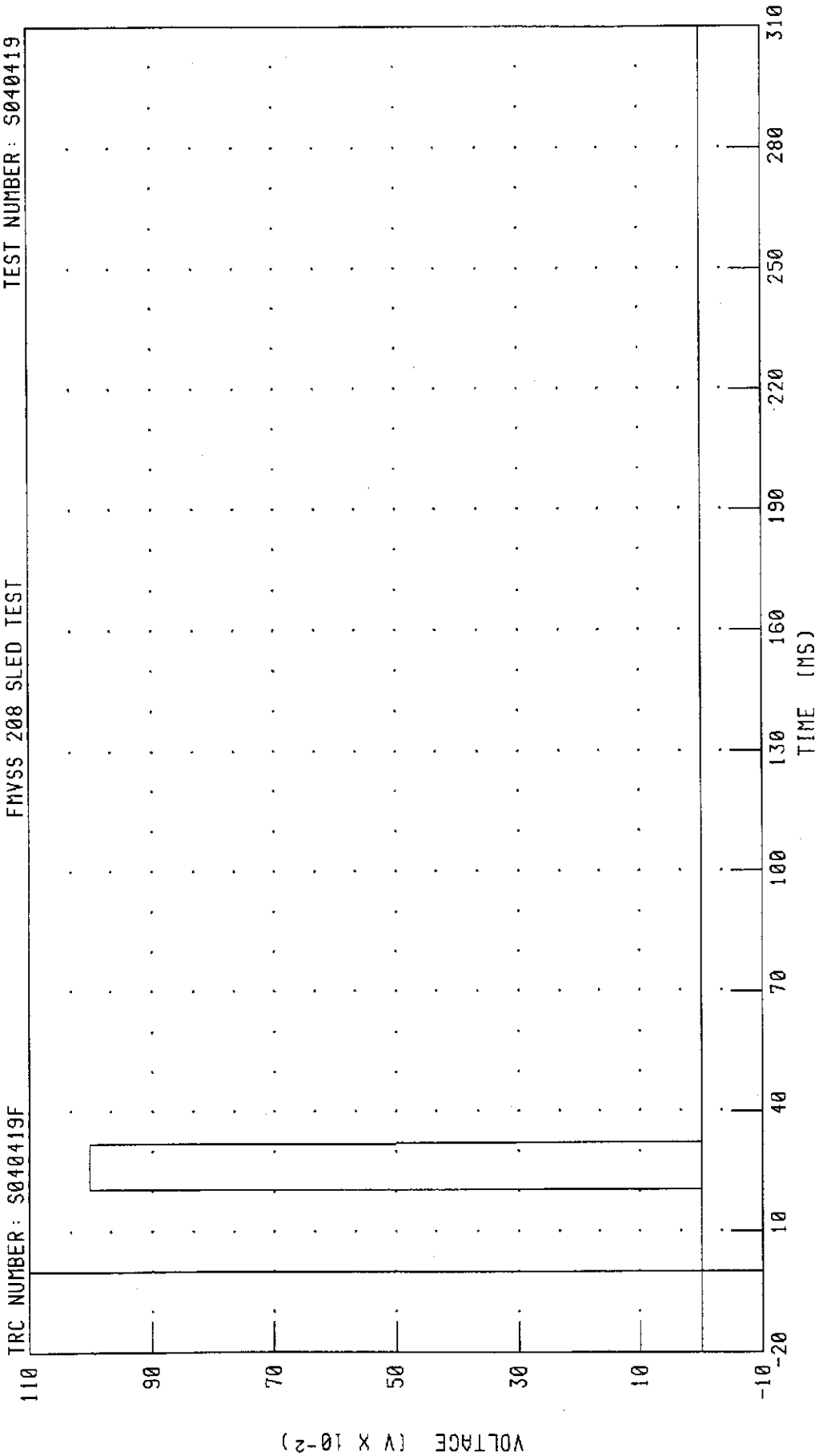
PEAK DATA: 0.00 MPH @ -20.00 MS; -29.55 MPH @ 145.92 MS

CHANNEL: SLDXVI FILTER: CH. CLASS 180

C40307 / 2004 CHRYSLER PACIFICA
 DRIVER PRIMARY AIRBAG EVENT
 FMVSS 208 SLED TEST

TEST NUMBER: S040419

TRC NUMBER: S040419F



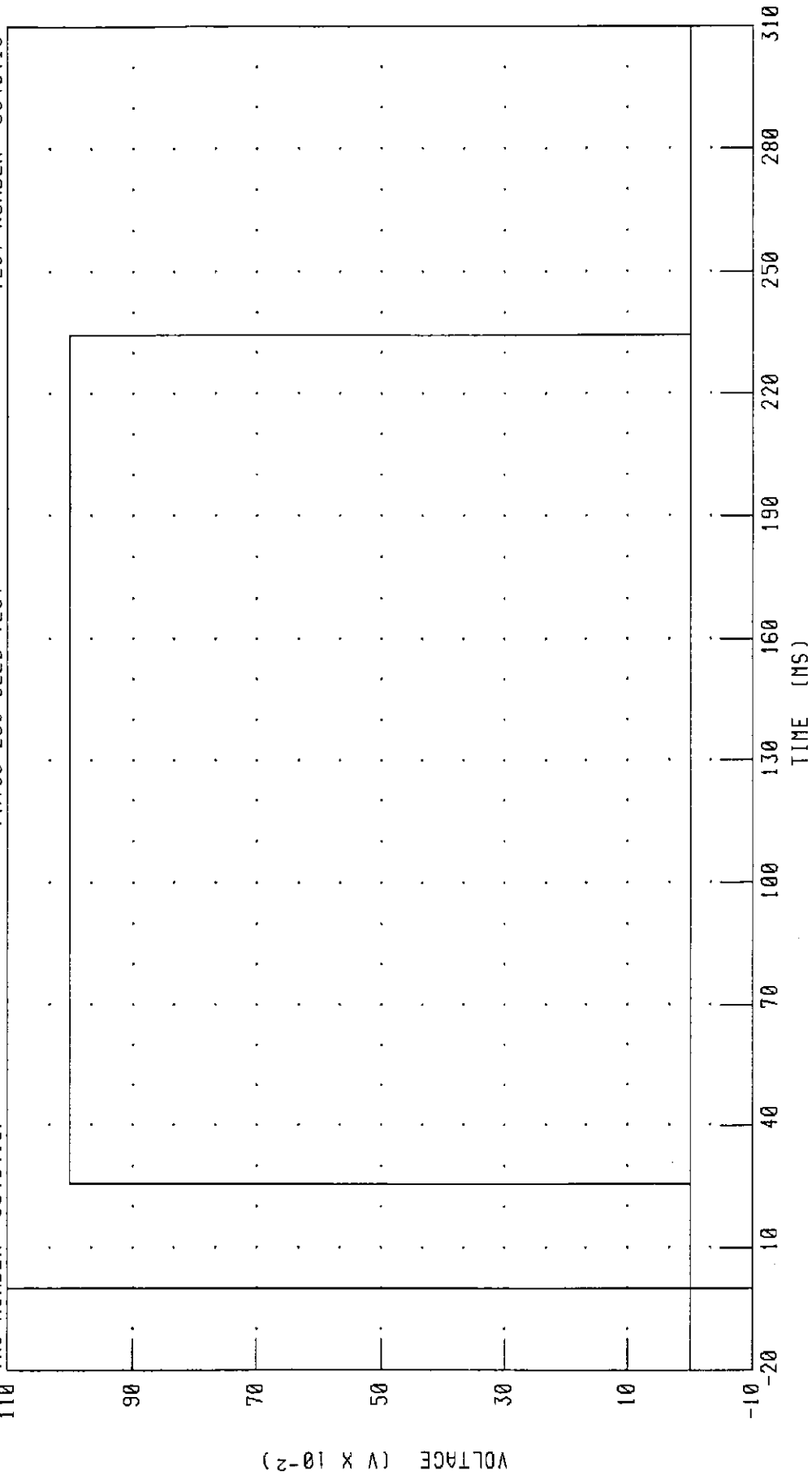
PEAK DATA: 1.00 V @ 20.72 MS; 0.00 V @ -20.00 MS

CHANNEL: DABET1 FILTER: CH. CLASS 1000

C40307 / 2004 CHRYSLER PACIFICA
 DRIVER SECONDARY AIRBAG EVENT
 FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



CHANNEL: DABET2 FILTER: CH. CLASS 1000

PEAK DATA: 1.00 V @ 25.68 MS, 0.00 V @ -20.00 MS

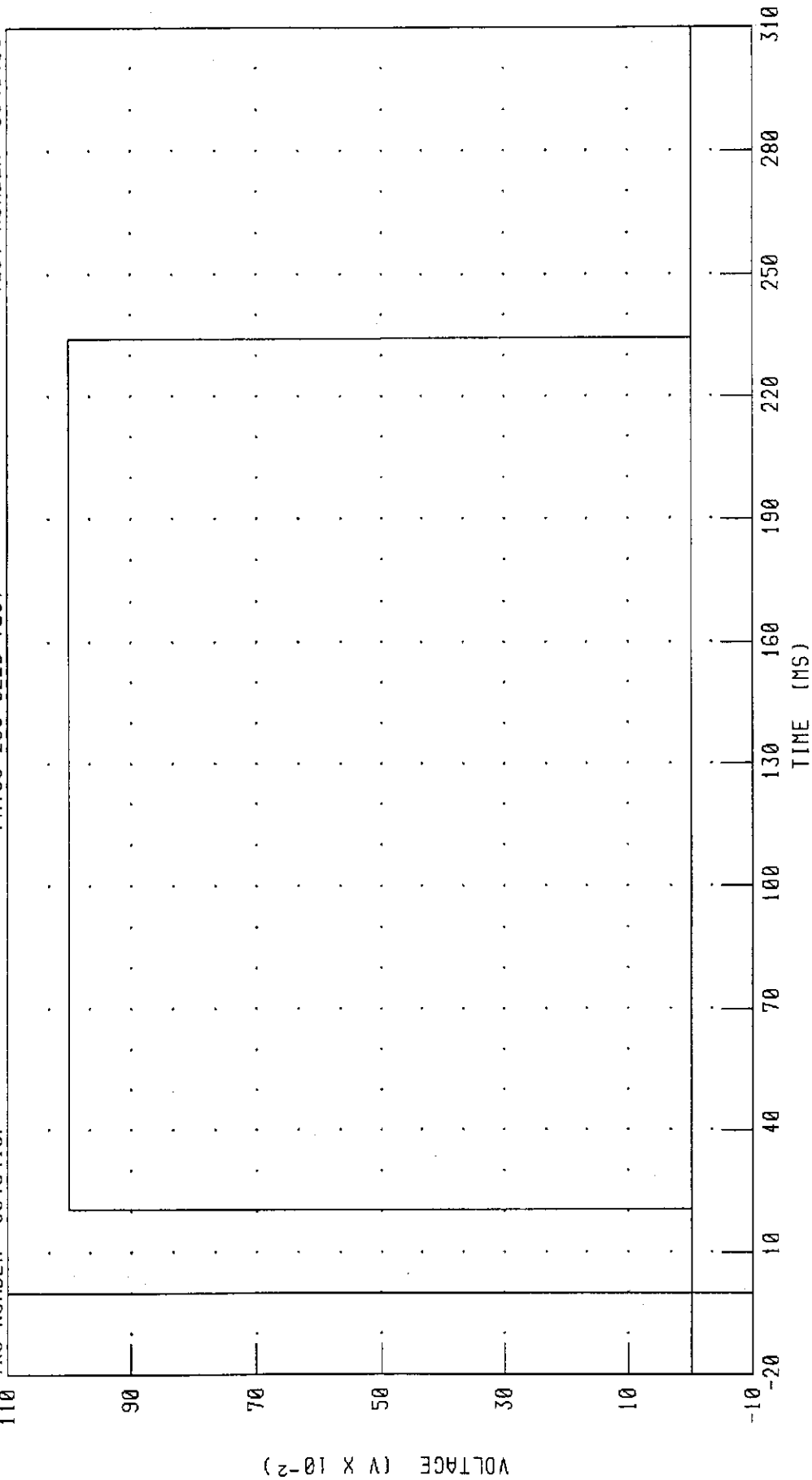
VOLTAGE (V X 10⁻²)

TIME (MS)

C40307 / 2004 CHRYSLER PACIFICA
PASSENGER PRIMARY AIRBAG EVENT
FMVSS 208 SLED TEST

TEST NUMBER: S040419

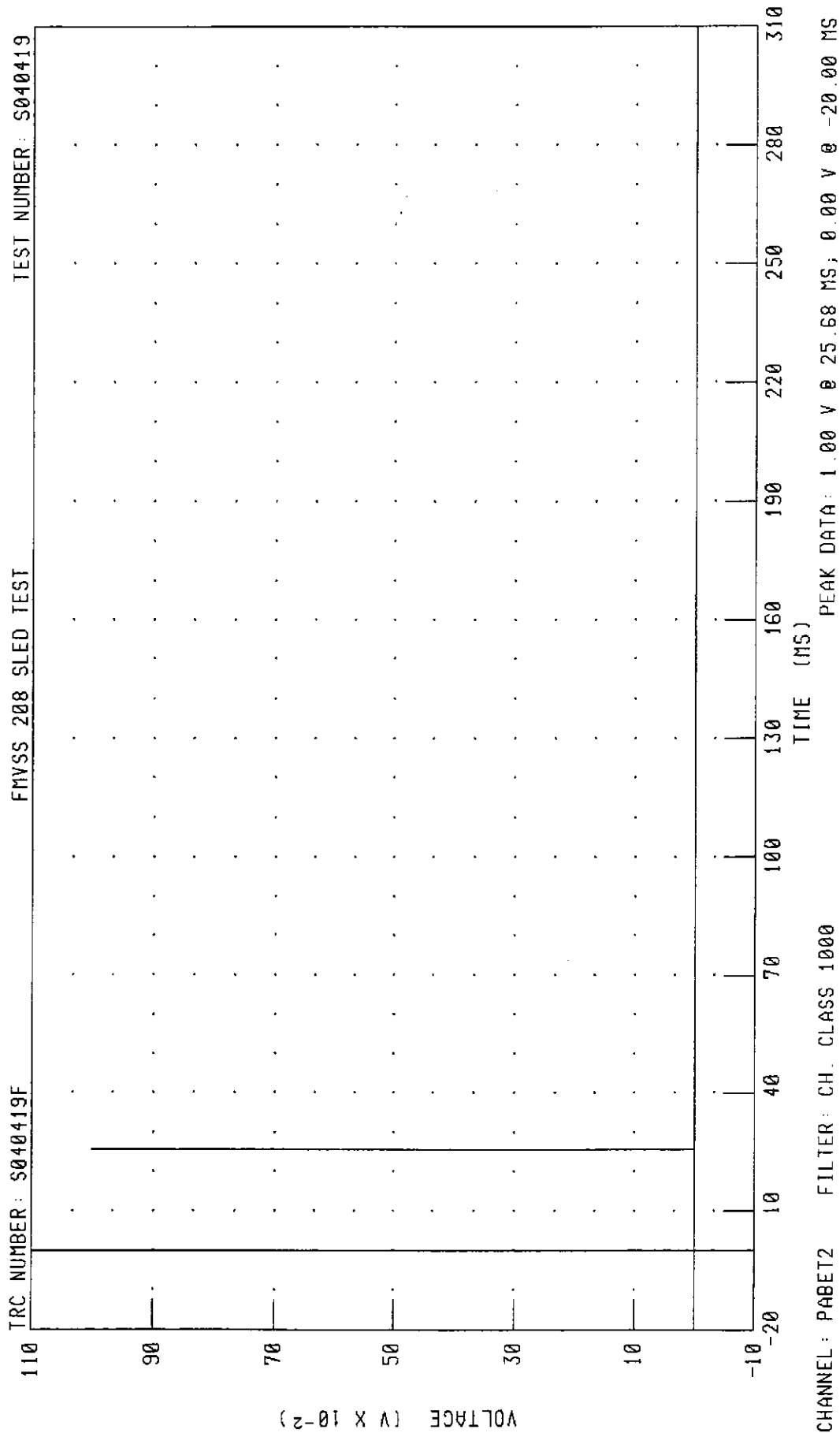
TRC NUMBER: S040419F



CHANNEL: PABET1 FILTER: CH. CLASS 1000

PEAK DATA: 1.00 V @ 20.72 MS, 0.00 V @ -20.00 MS

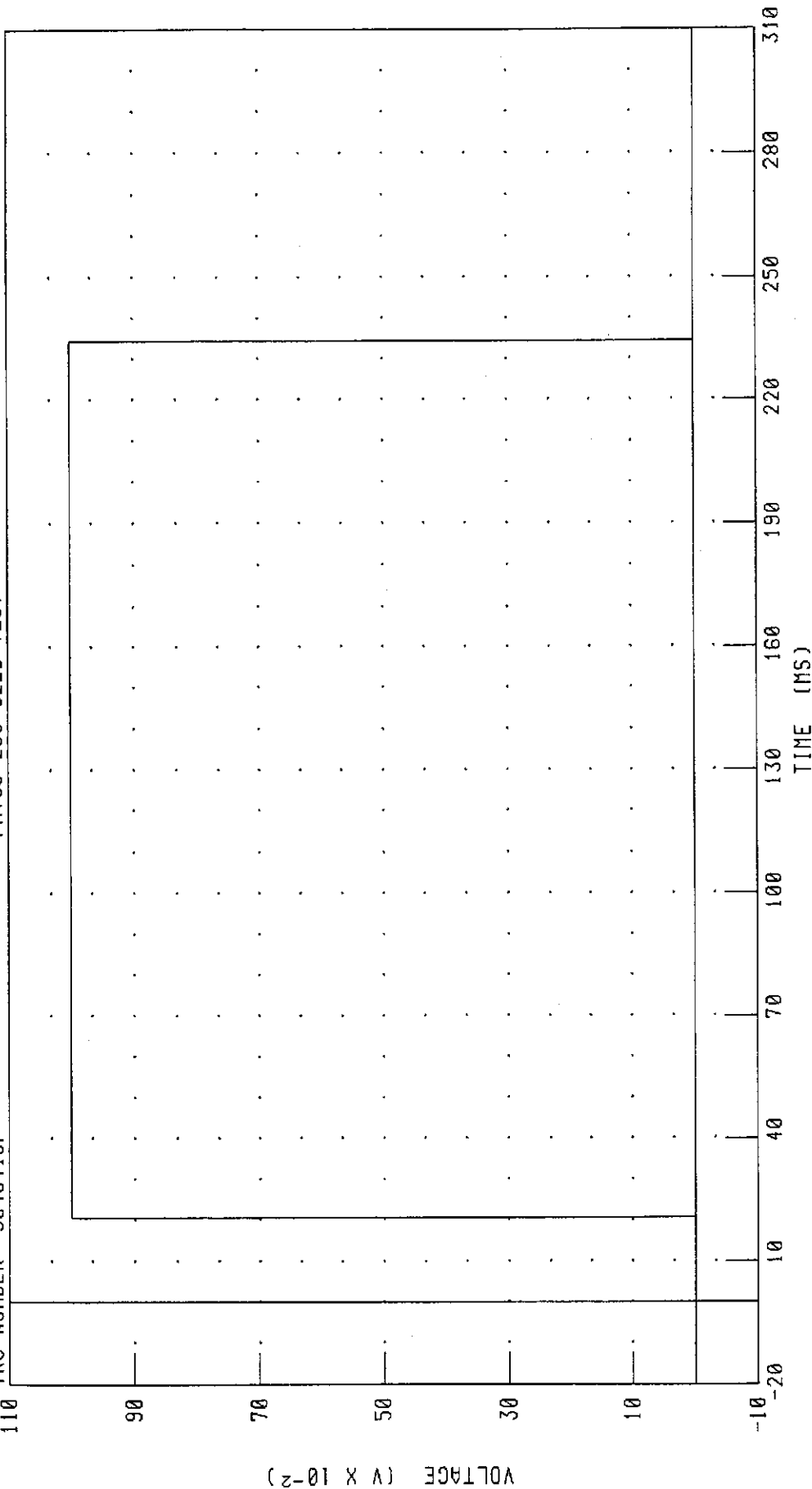
C40307 / 2004 CHRYSLER PACIFICA
PASSENGER SECONDARY AIRBAG EVENT



C40307 / 2004 CHRYSLER PACIFICA
DRIVER KNEE BOLSTER AIRBAG EVENT
FMVSS 208 SLED TEST

TEST NUMBER: S040419

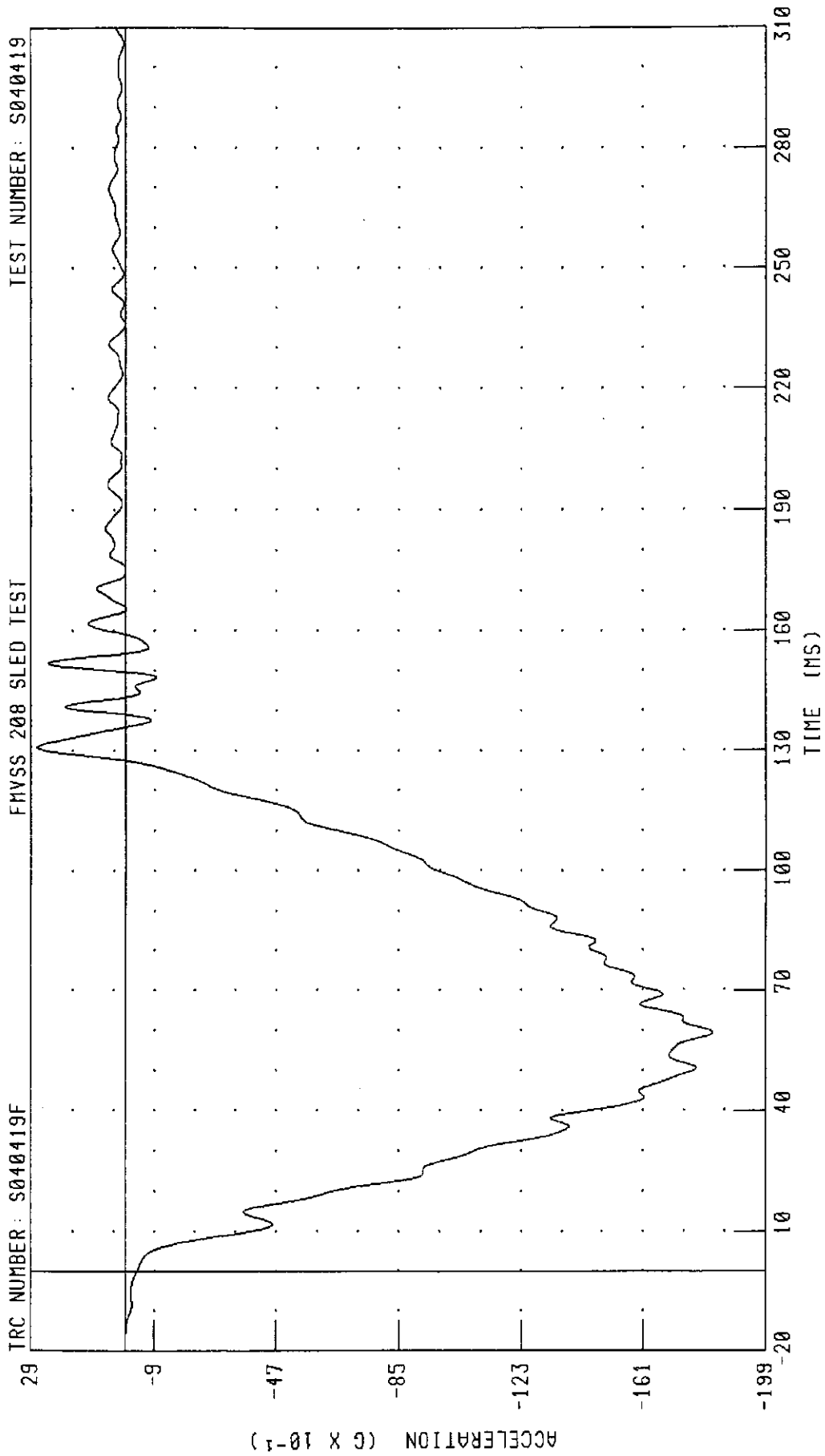
TRC NUMBER: S040419F



CHANNEL: ABEVT5 FILTER: CH. CLASS 1000

PEAK DATA: 1.00 V @ 20.72 MS, 0.00 V @ -20.00 MS

C40307 / 2004 CHRYSLER PACIFICA
 REAR AXLE X-AXIS ACCELERATION
 FMVSS 208 SLED TEST

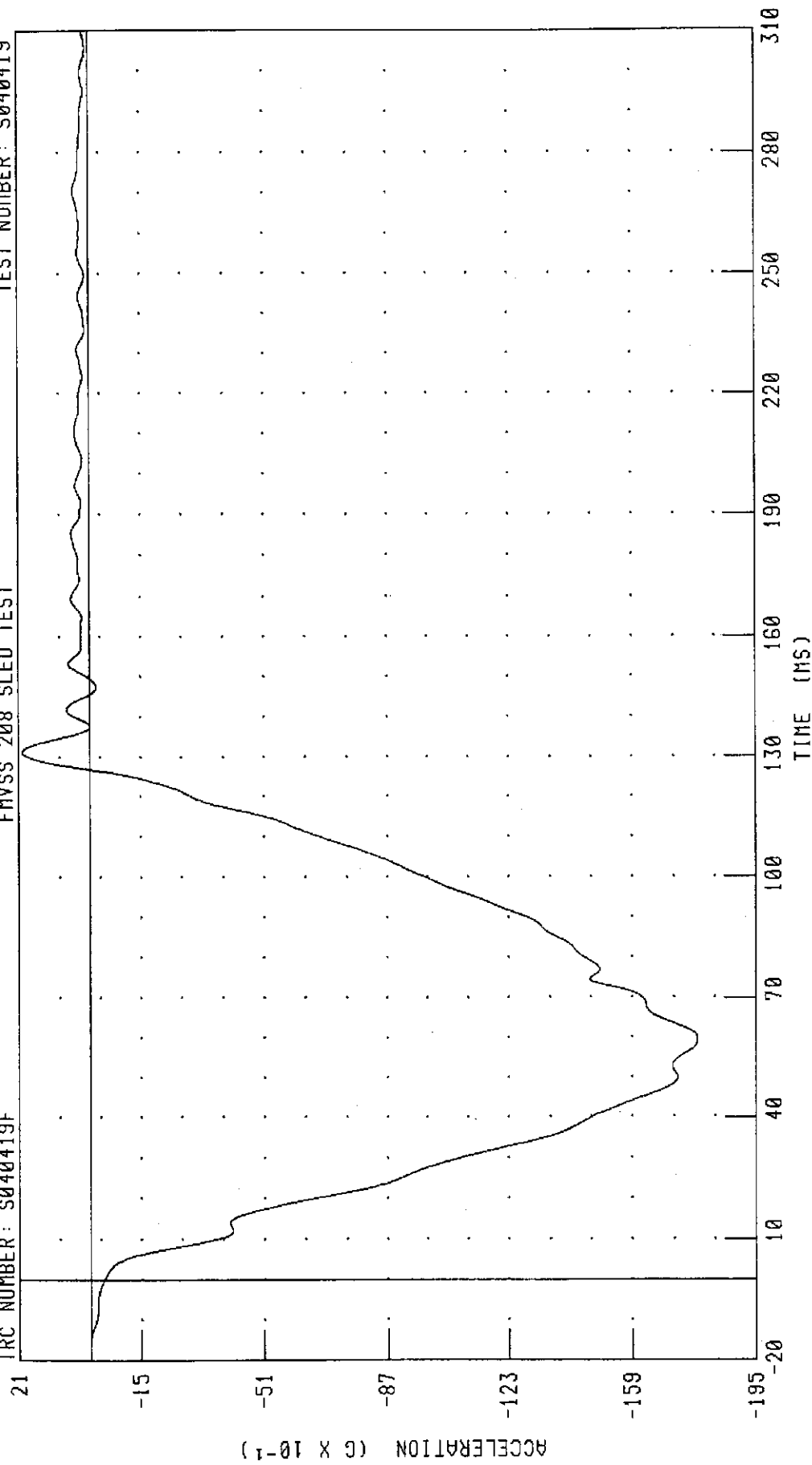


CHANNEL: RAXC FILTER: CH. CLASS 60

C40307 / 2004 CHRYSLER PACIFICA
REAR SEAT CROSSEMBER LEFT SIDE X-AXIS ACCELERATION
FMVSS 208 SLED TEST

TEST NUMBER: S040419

TRC NUMBER: S040419F



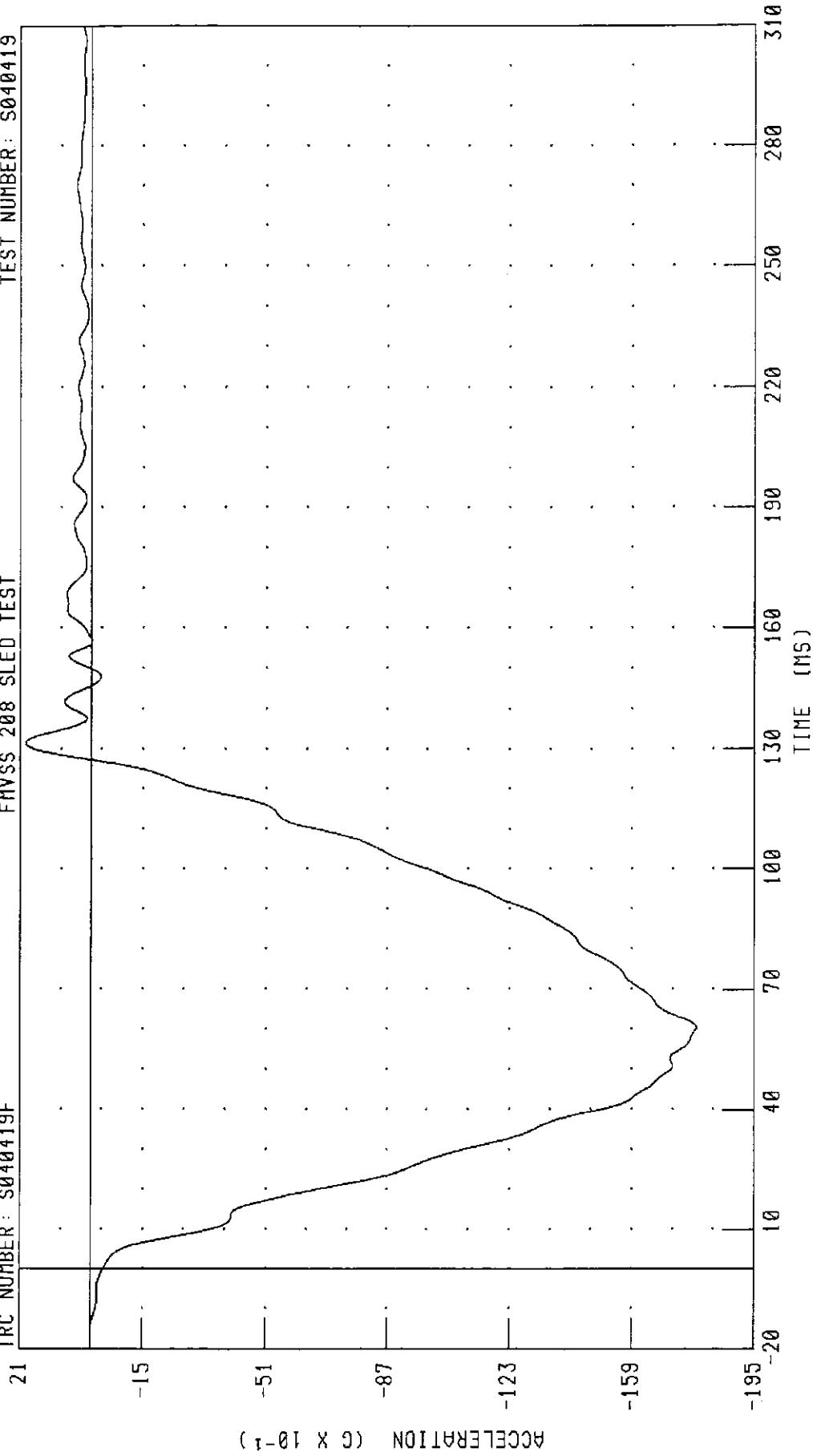
CHANNEL: LBXC FILTER: CH. CLASS 60

PEAK DATA: 1.99 G @ 131.44 MS; -17.76 G @ 177.76 MS

C40307 / 2004 CHRYSLER PACIFICA
 REAR SEAT CROSSEMBER RIGHT SIDE X-AXIS ACCELERATION
 FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



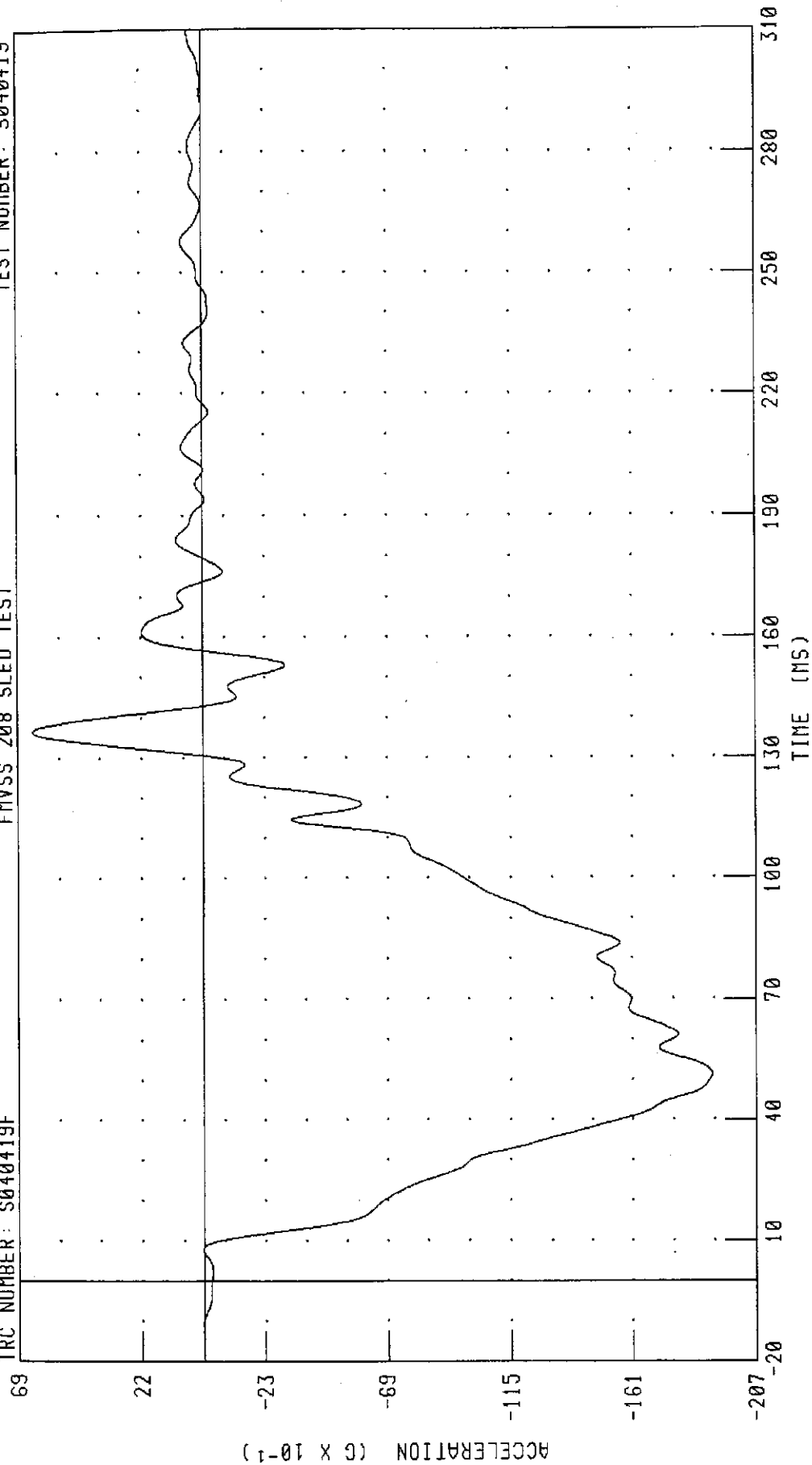
CHANNEL: RBXC FILTER: CH. CLASS 60

PEAK DATA: 1.93 G @ 131.44 MS; -17.79 G @ 60.40 MS

C40307 / 2004 CHRYSLER PACIFICA
 TOP ENGINE X-AXIS ACCELERATION
 FMVSS 208 SLED TEST

TEST NUMBER: S040419

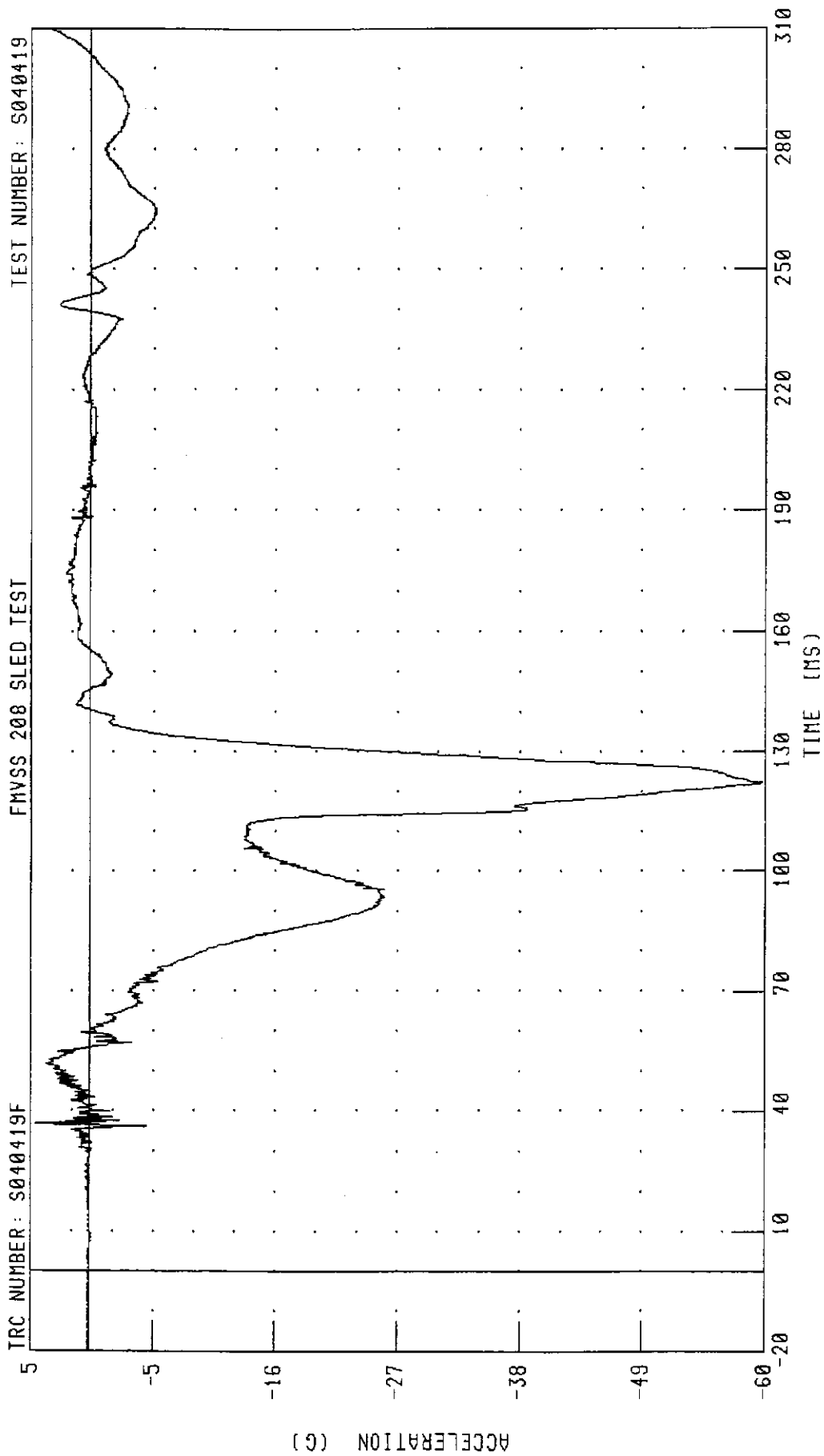
TRC NUMBER: S040419F



CHANNEL: TEXTG FILTER: CH. CLASS 60

PEAK DATA: 6.35 G @ 136.64 MS; -19.09 G @ 51.36 MS

C40307 / 2004 CHRYSLER PACIFICA
 DRIVER HEAD X-AXIS ACCELERATION
 FMVSS 208 SLED TEST

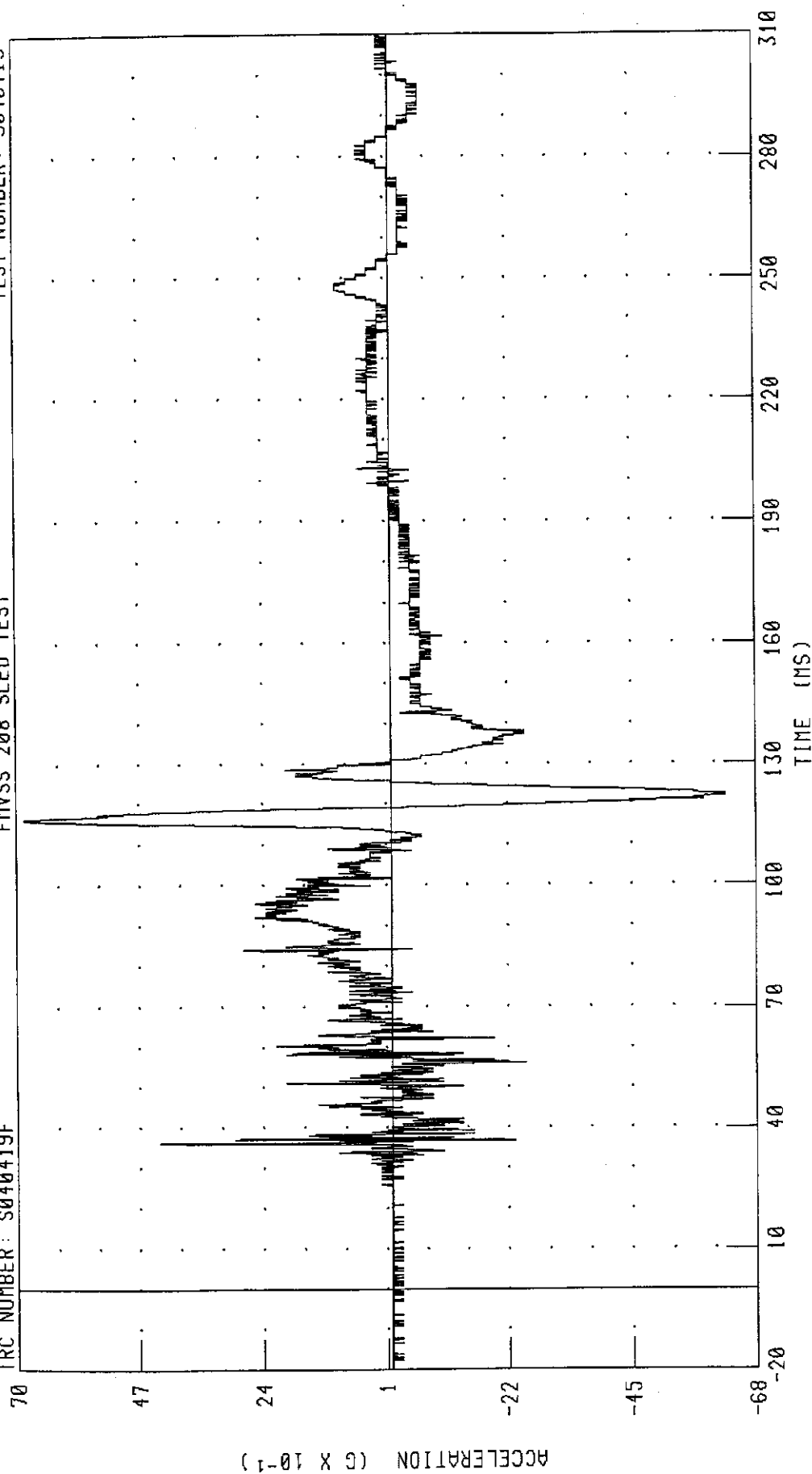


CHANNEL: HEDXC1 FILTER: CH. CLASS 1000

C40307 / 2004 CHRYSLER PACIFICA
DRIVER HEAD Y-AXIS ACCELERATION
FMVSS 208 SLED TEST

TEST NUMBER: S040419

TRC NUMBER: S040419F



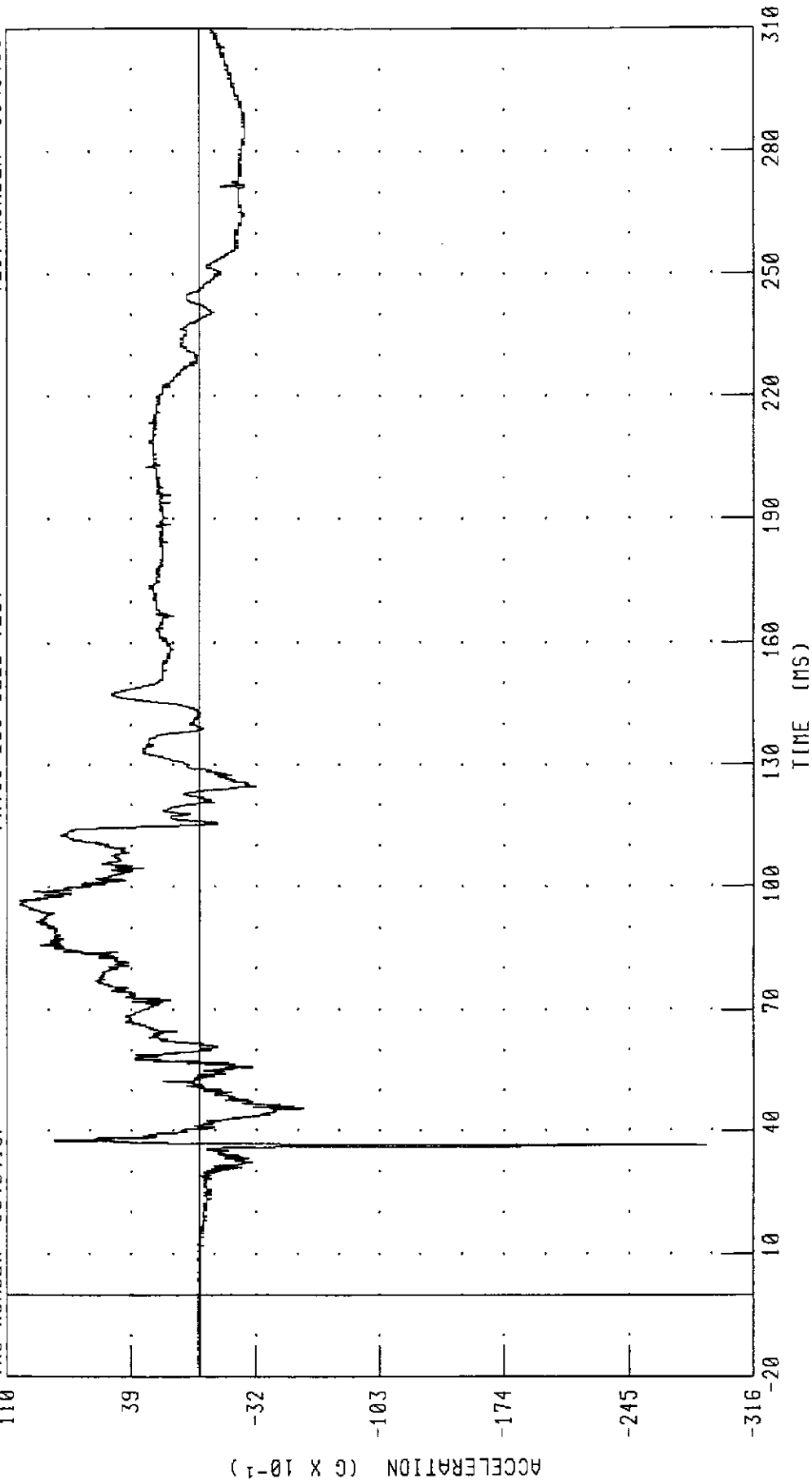
CHANNEL: HEDYC1 FILTER: CH. CLASS 1000

C40307 / 2004 CHRYSLER PACIFICA
DRIVER HEAD Z-AXIS ACCELERATION

TRC NUMBER: S040419F

FMVSS 208 SLED TEST

TEST NUMBER: S040419



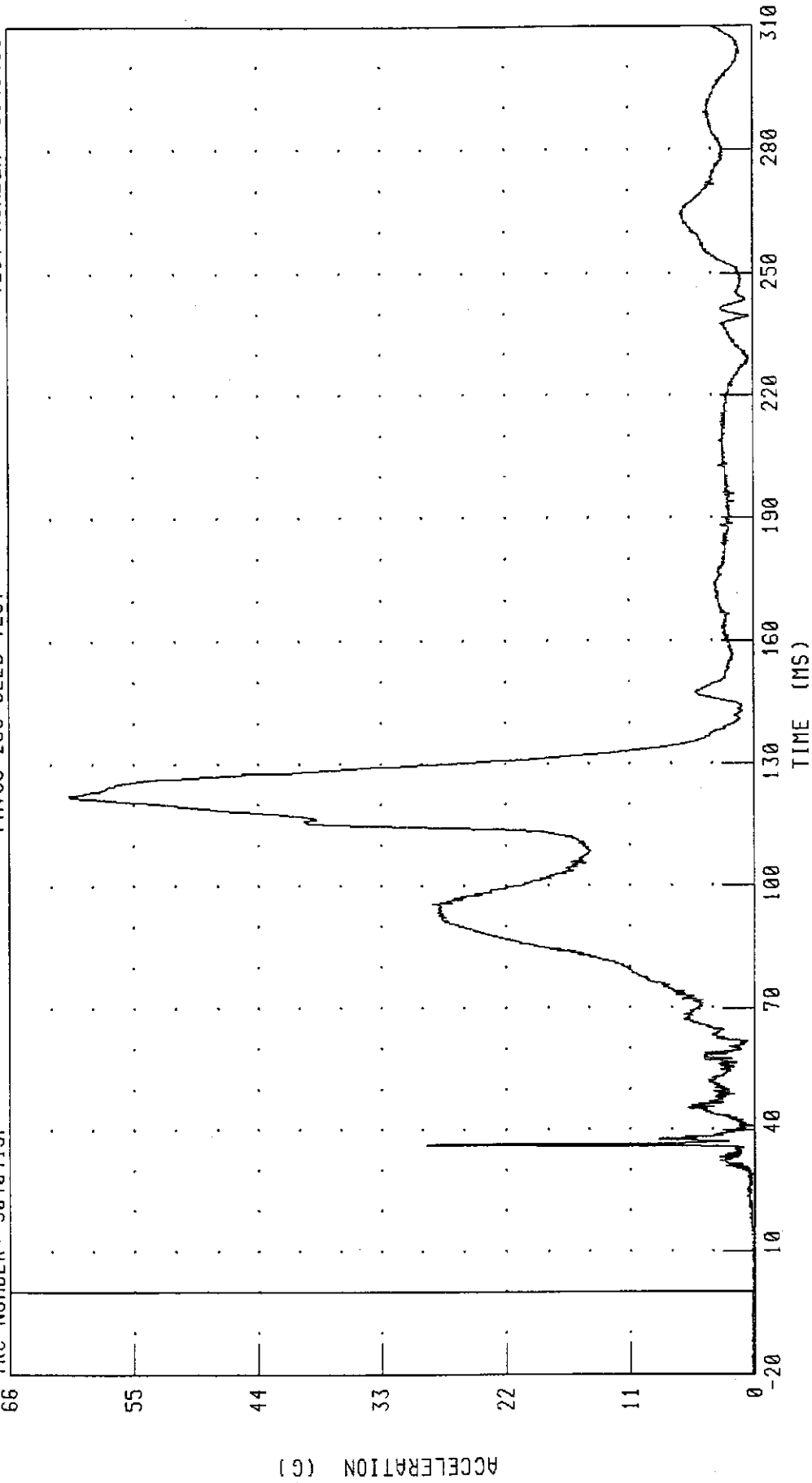
CHANNEL: HEDZG1 FILTER: CH. CLASS 1000

PEAK DATA: 10.28 G @ 95.84 MS; -28.88 G @ 36.40 MS

C40307 / 2004 CHRYSLER PACIFICA
DRIVER HEAD RESULTANT ACCELERATION
FMVSS 208 SLED TEST

TRC NUMBER: S040419F

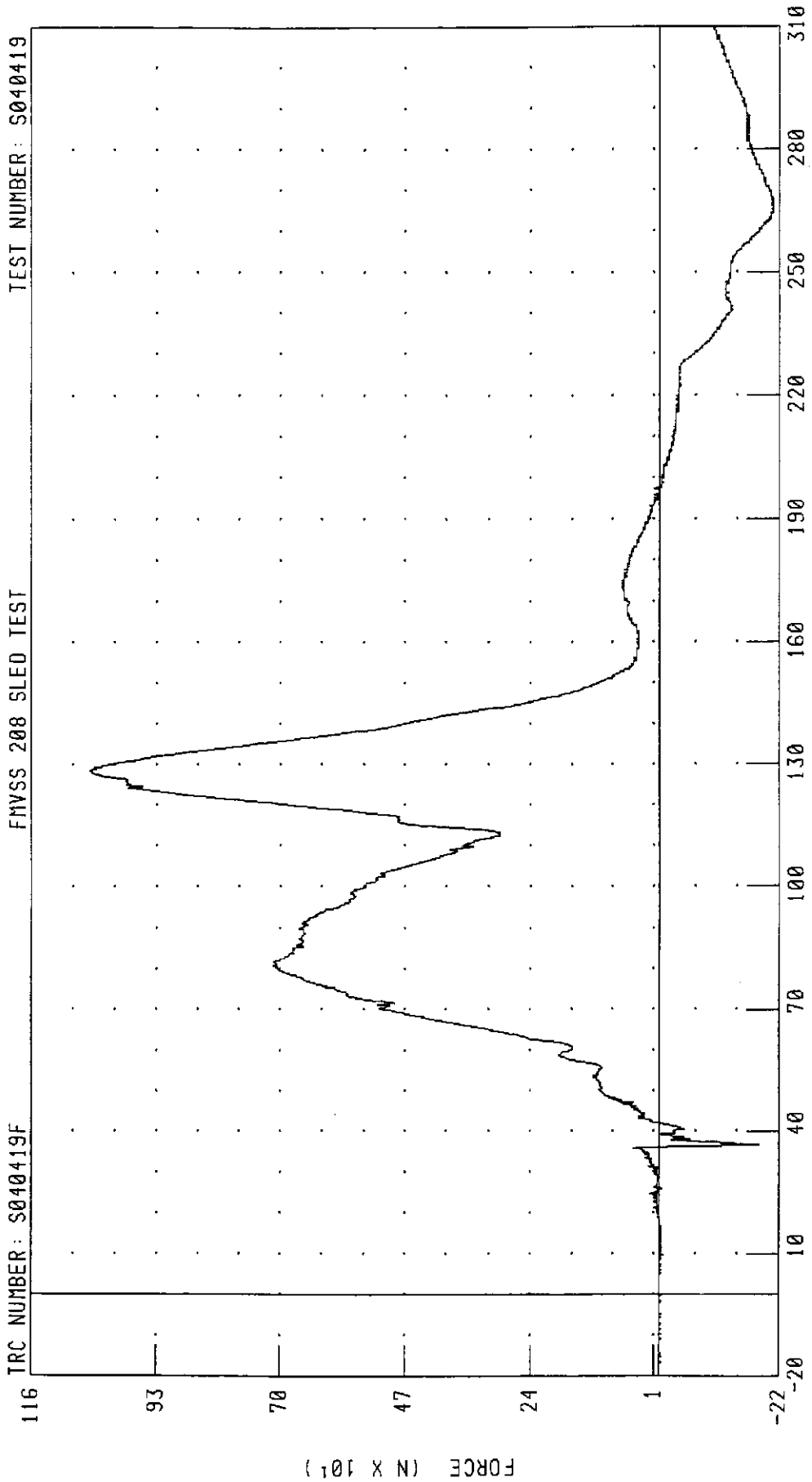
TEST NUMBER: S040419



CHANNEL: HEDRC1 FILTER: CH. CLASS 1000

PEAK DATA: 60.74 G @ 122.40 MS; 0.06 G @ -19.92 MS

C40307 / 2004 CHRYSLER PACIFICA
DRIVER NECK X-AXIS SHEAR FORCE



CHANNEL: NEKXF1 FILTER: CH. CLASS 1000

C40307 / 2004 CHRYSLER PACIFICA
 DRIVER NECK Y-AXIS SHEAR FORCE
 FMVSS 208 SLED TEST

TEST NUMBER: S040419

TRC NUMBER: S040419F

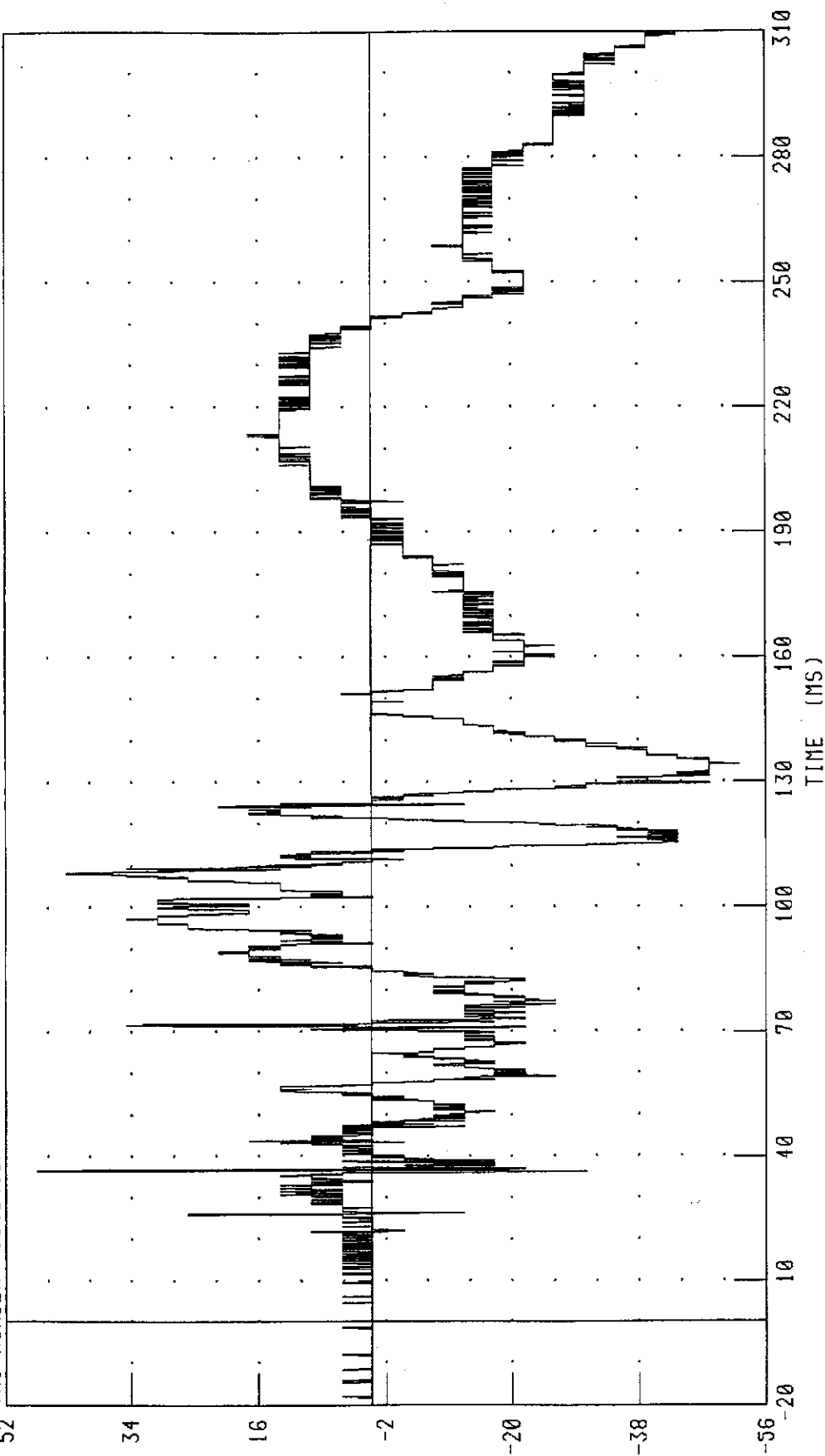
52

34

16

FORCE (N)

B-27



TIME (MS)

CHANNEL: NEKYF1 FILTER: CH. CLASS 1000

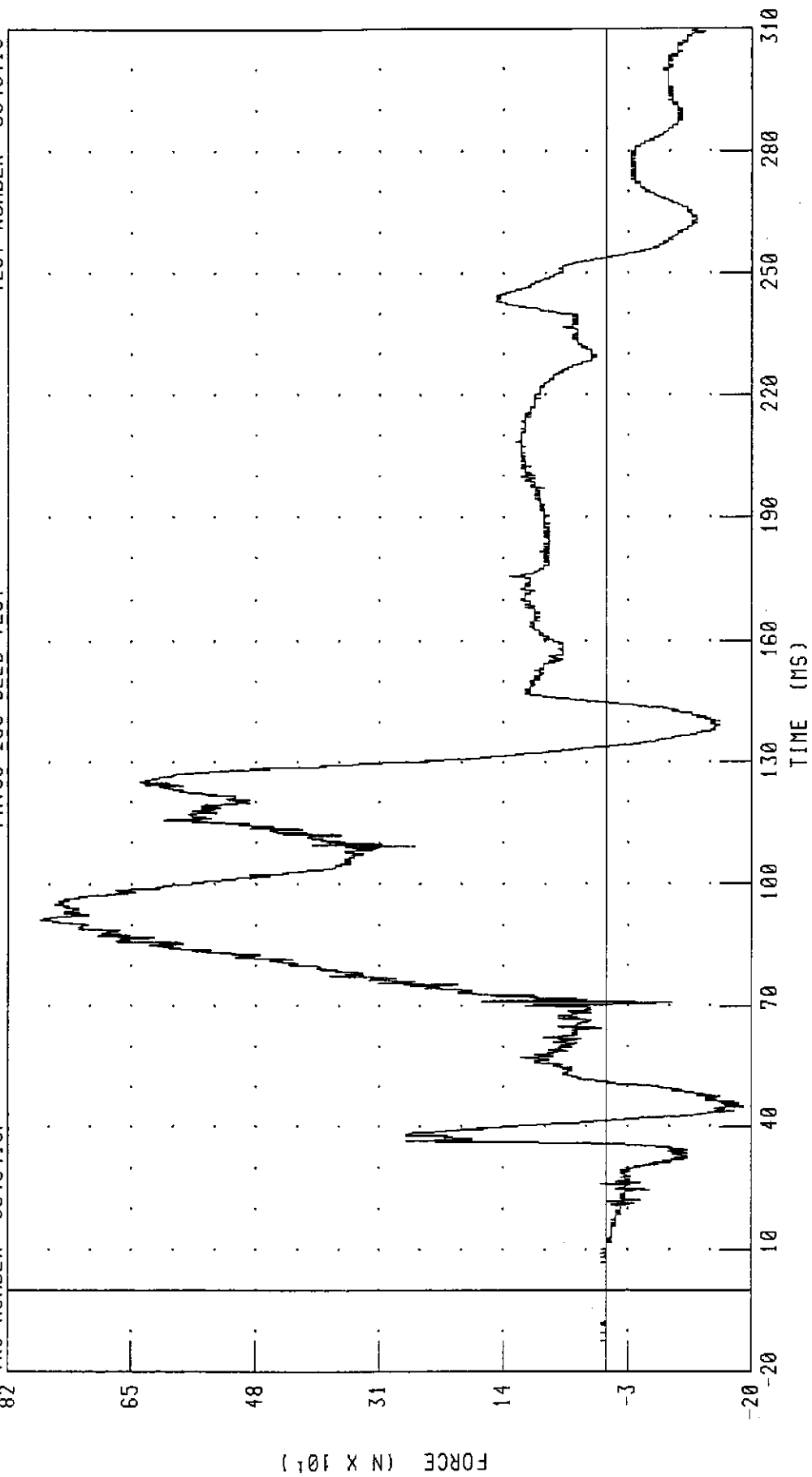
PEAK DATA: 47.68 N @ 36.72 MS; -52.27 N @ 134.24 MS

S040419

C40307 / 2004 CHRYSLER PACIFICA
DRIVER NECK Z-AXIS AXIAL FORCE
FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



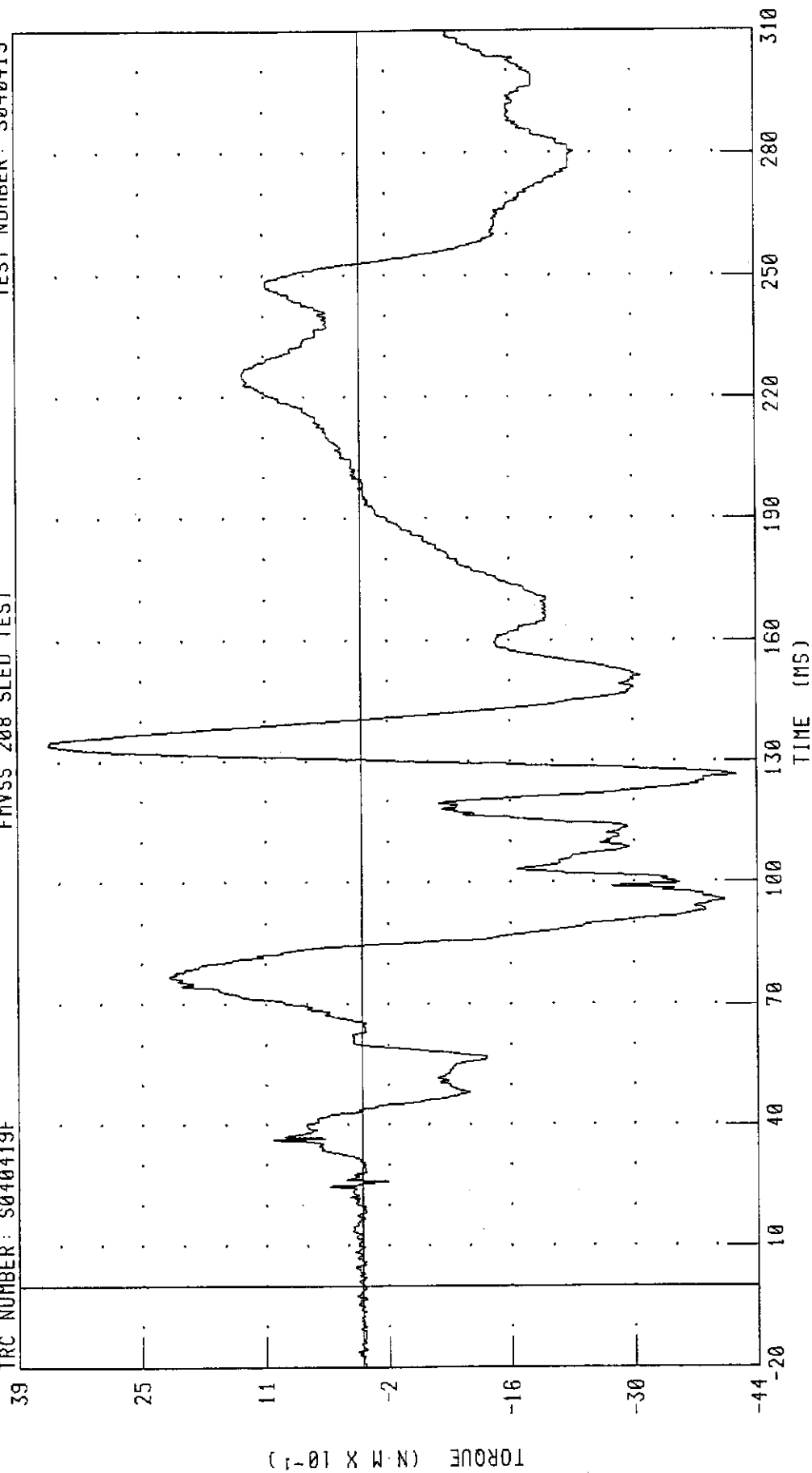
CHANNEL: NEKZF1 FILTER: CH. CLASS 1000

PEAK DATA: 775.20 N @ 91.52 MS; -189.01 N @ 44.80 MS

C40307 / 2004 CHRYSLER PACIFICA
DRIVER NECK MOMENT ABOUT X AXIS
FMVSS 208 SLED TEST

TEST NUMBER: S040419

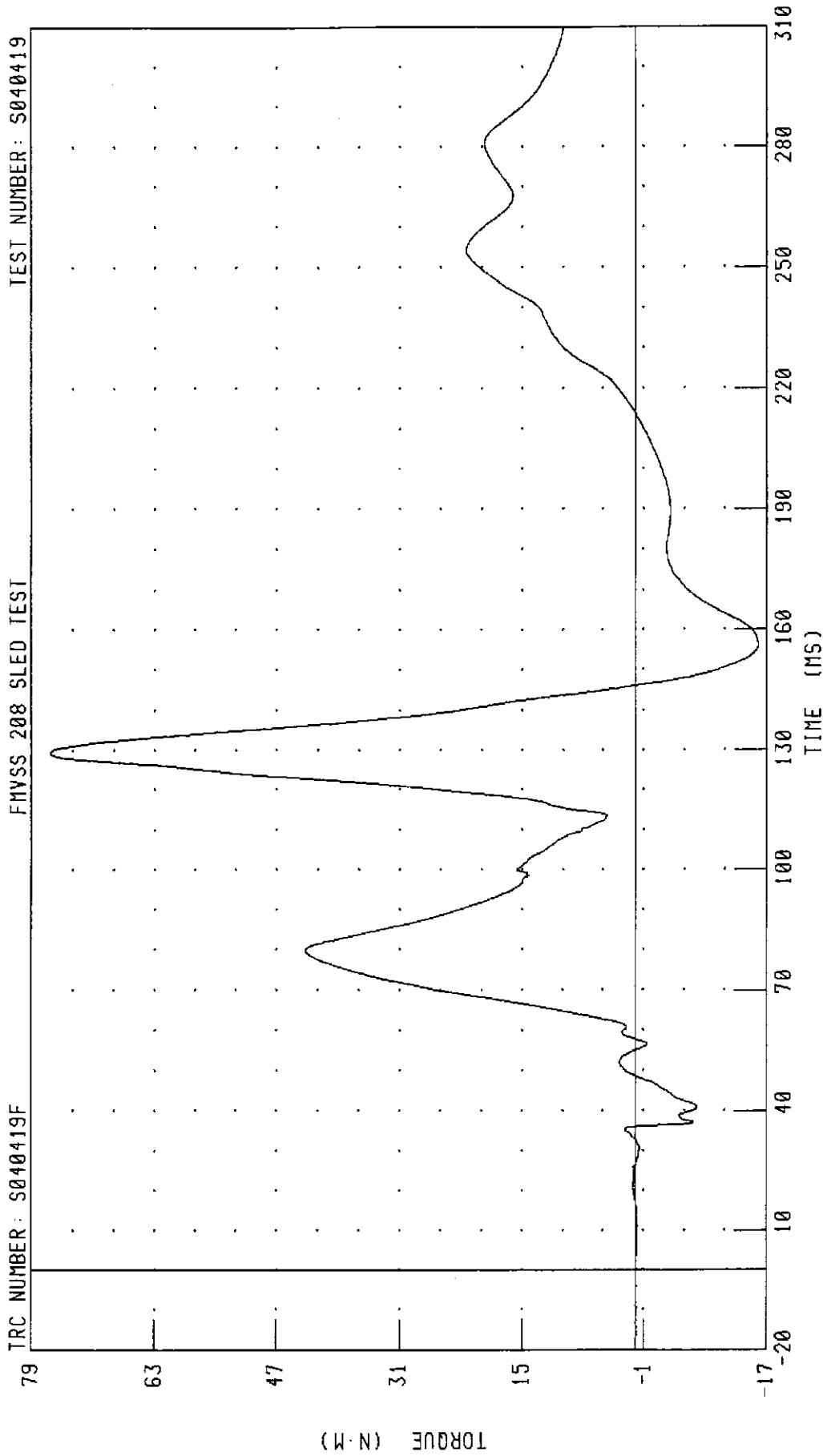
TRC NUMBER: S040419F



PEAK DATA: 3.55 N·m @ 134.32 ms; -4.26 N·m @ 126.56 ms

CHANNEL: NEKXH1 FILTER: CH. CLASS 600

C40307 / 2004 CHRYSLER PACIFICA
 DRIVER NECK MOMENT ABOUT Y AXIS



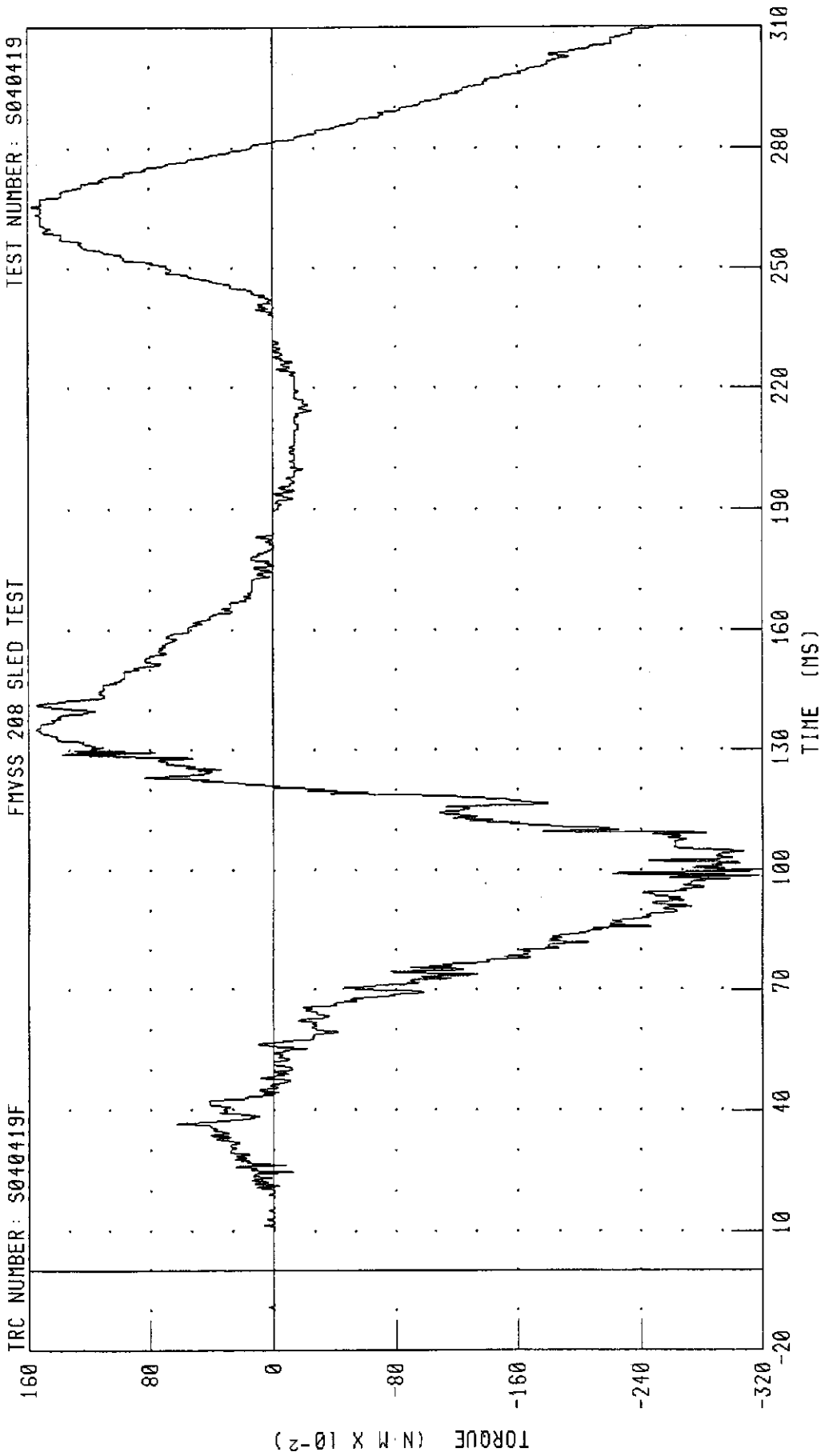
CHANNEL: NEKYN1 FILTER: CH. CLASS 600

PEAK DATA: 76.56 N·M @ 129.28 MS, -15.98 N·M @ 156.00 MS

C40307 / 2004 CHRYSLER PACIFICA
DRIVER NECK MOMENT ABOUT Z AXIS
FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



CHANNEL: NEKZM1 FILTER: CH. CLASS 600

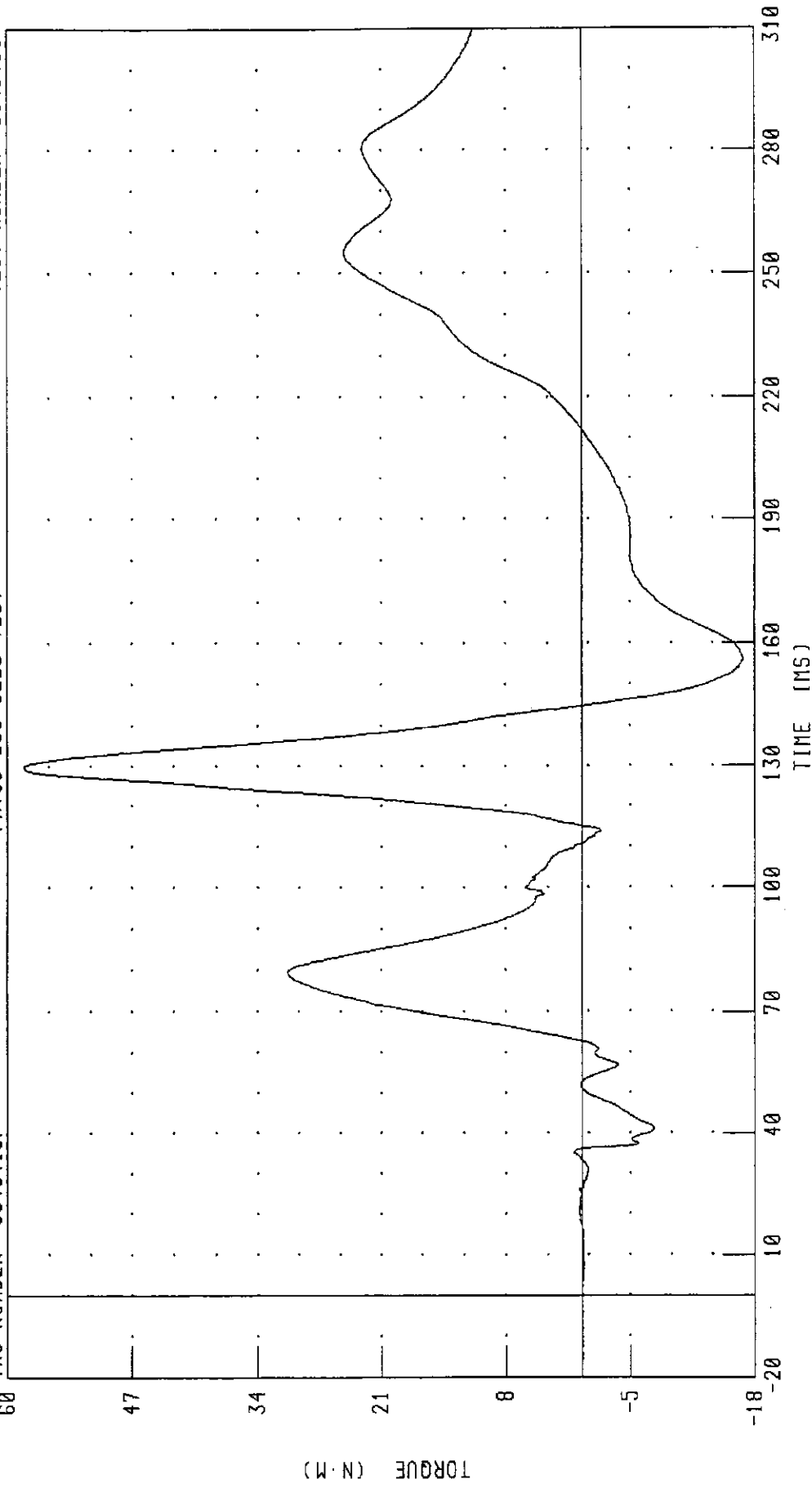
PEAK DATA: 1.57 N·m @ 265.52 MS; -3.17 N·m @ 98.48 MS

C40307 / 2004 CHRYSLER PACIFICA
DRIVER NECK MOMENT ABOUT Y AXIS OCCIPITAL CONDYLE

TRC NUMBER: S040419F

FMVSS 208 SLED TEST

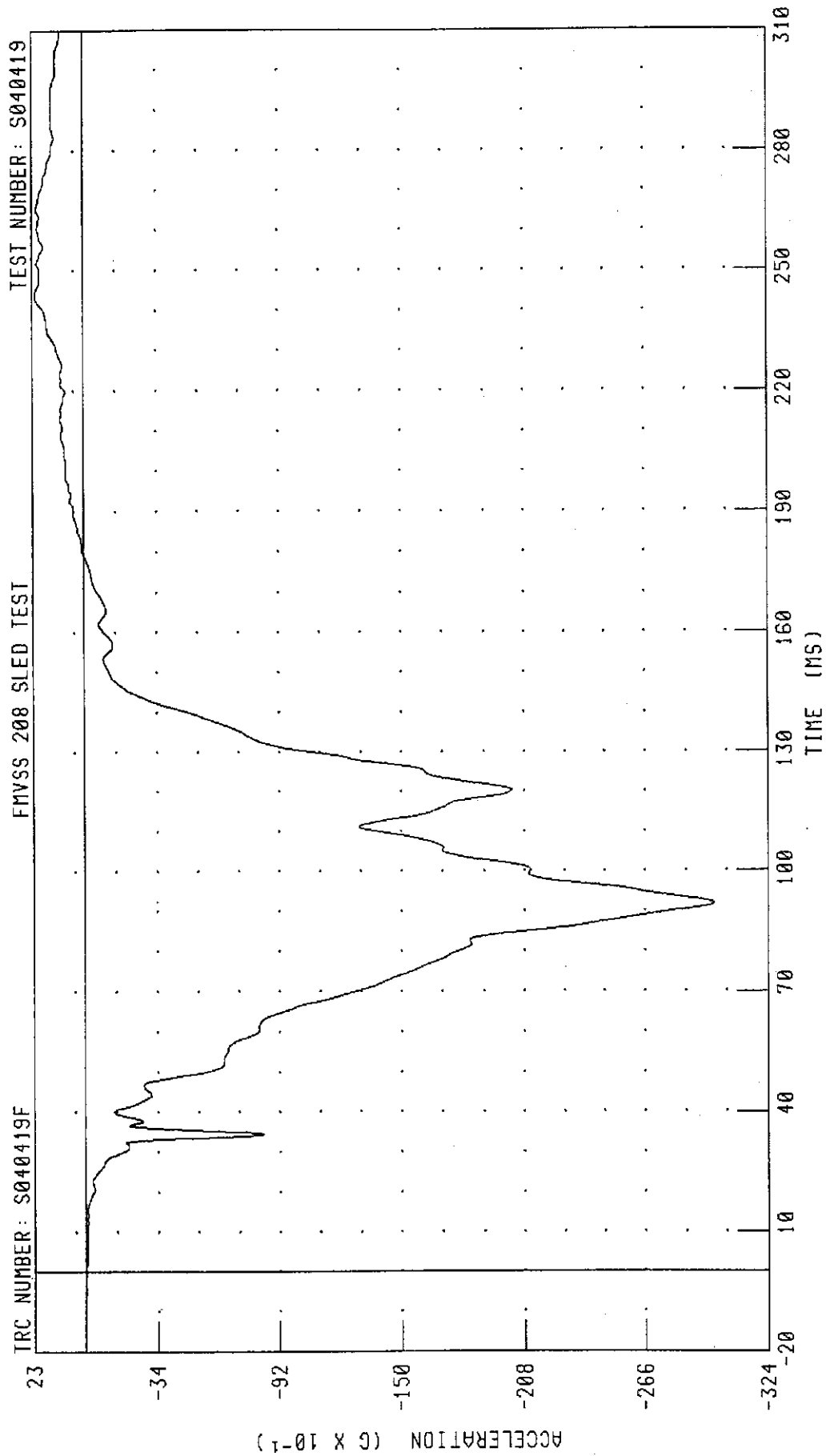
TEST NUMBER: S040419



CHANNEL: NEKOM1 FILTER: CH. CLASS 600

PEAK DATA: 58.28 N·m @ 129.92 ms; -16.80 N·m @ 156.08 ms

C40307 / 2004 CHRYSLER PACIFICA
DRIVER CHEST X-AXIS ACCELERATION
FMVSS 208 SLED TEST



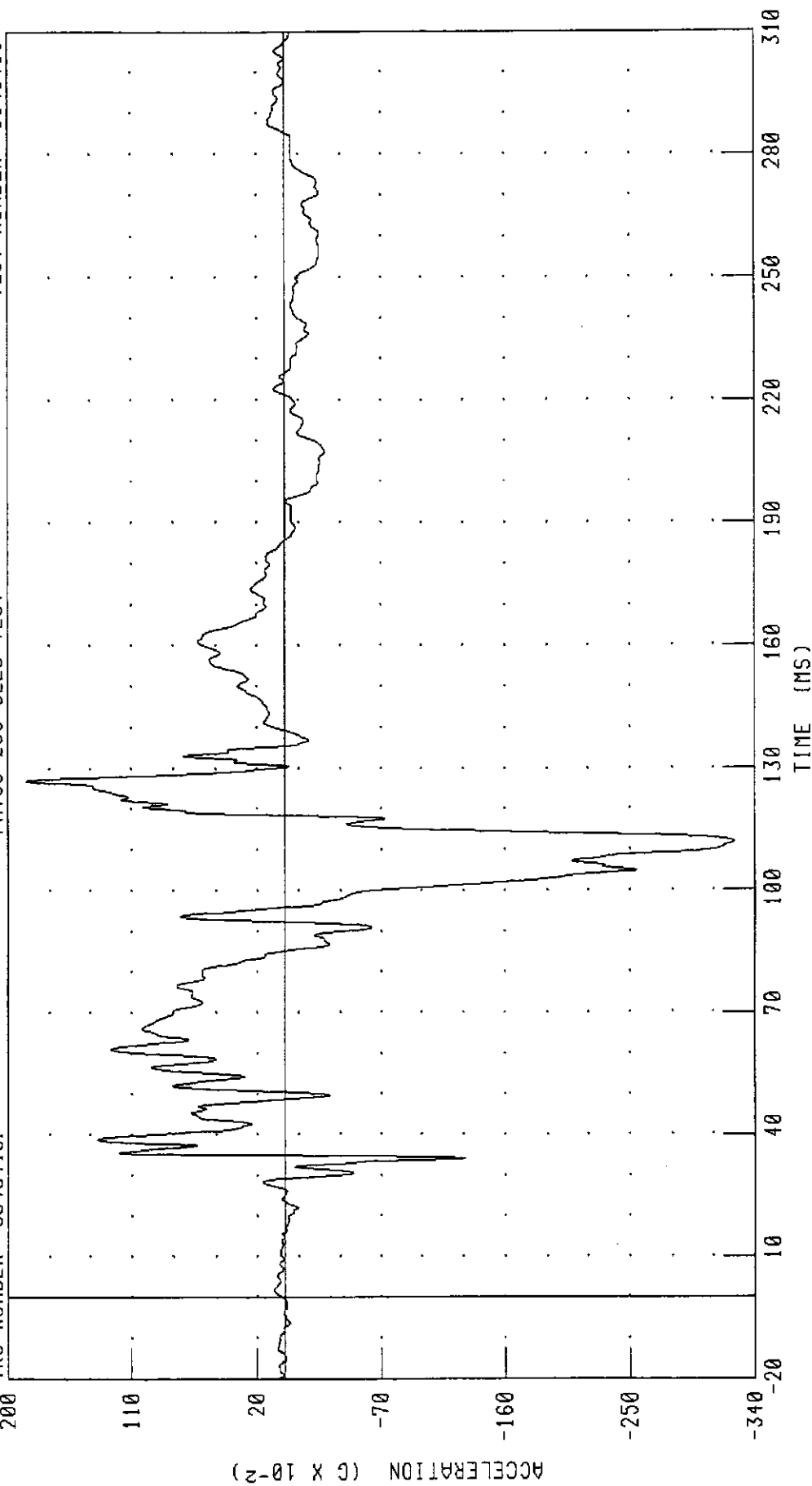
CHANNEL: CSTXG1 FILTER: CH. CLASS 180

C40307 / 2004 CHRYSLER PACIFICA
DRIVER CHEST Y-AXIS ACCELERATION

TRC NUMBER: S040419F

FMVSS 208 SLED TEST

TEST NUMBER: S040419



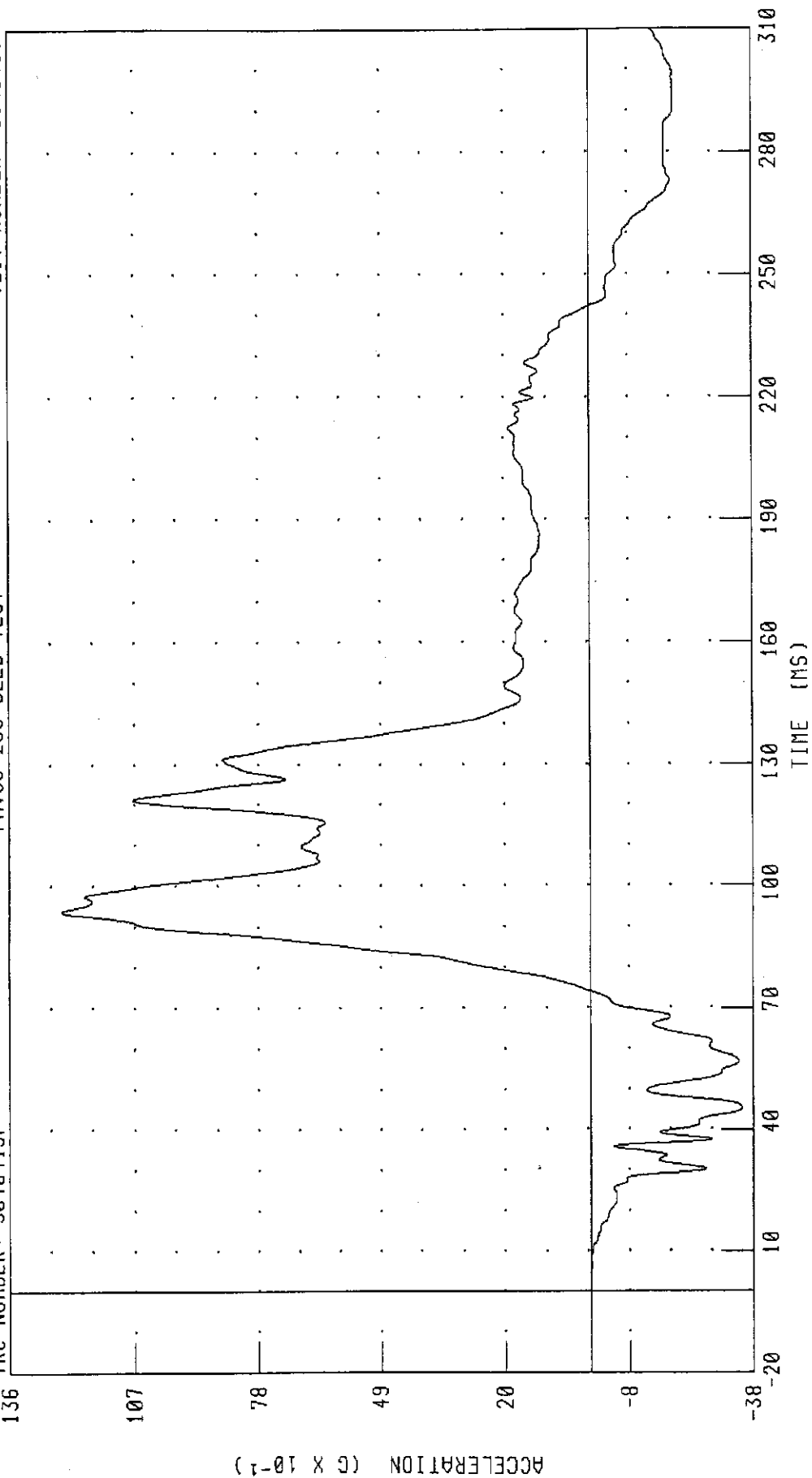
CHANNEL: CSTYG1 FILTER: CH. CLASS 180

PEAK DATA: 1.87 G @ 127.12 MS; -3.25 G @ 111.84 MS

C40307 / 2004 CHRYSLER PACIFICA
 DRIVER CHEST Z-AXIS ACCELERATION
 FMVSS 208 SLED TEST

TEST NUMBER: S040419

TRC NUMBER: S040419F



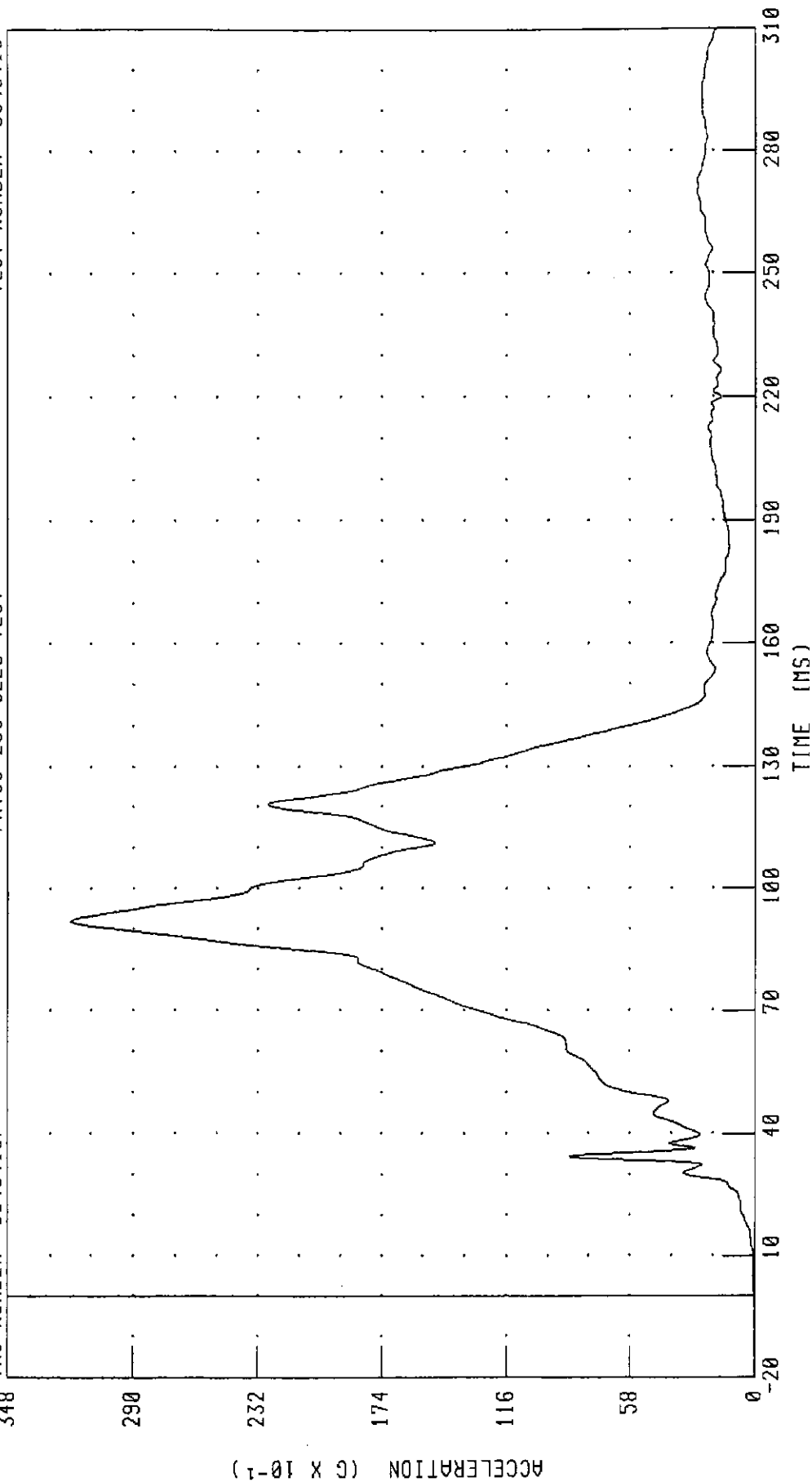
CHANNEL: CSTZG1 FILTER: CH. CLASS 180

PEAK DATA: 12.38 G @ 93.76 MS; -3.54 G @ 45.20 MS

C40307 / 2004 CHRYSLER PACIFICA
 DRIVER CHEST RESULTANT ACCELERATION
 FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



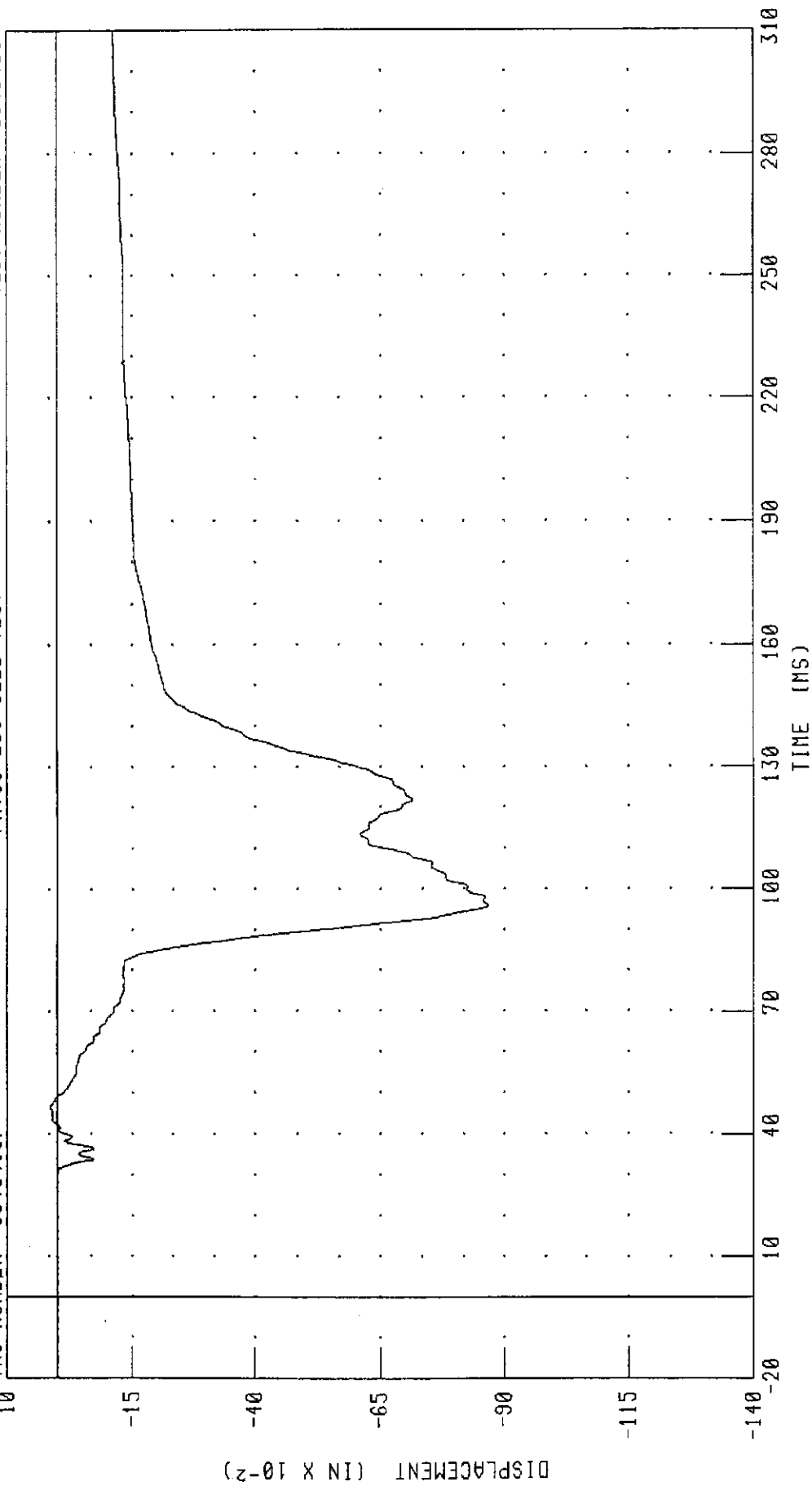
CHANNEL: CSTRG1 FILTER: CH. CLASS 180

PEAK DATA: 31.85 G @ 91.92 MS, 0.01 G @ -8.32 MS

C40307 / 2004 CHRYSLER PACIFICA
DRIVER CHEST DEFLECTION
FMVSS 208 SLED TEST

TEST NUMBER: S040419

IRC NUMBER: S040419F



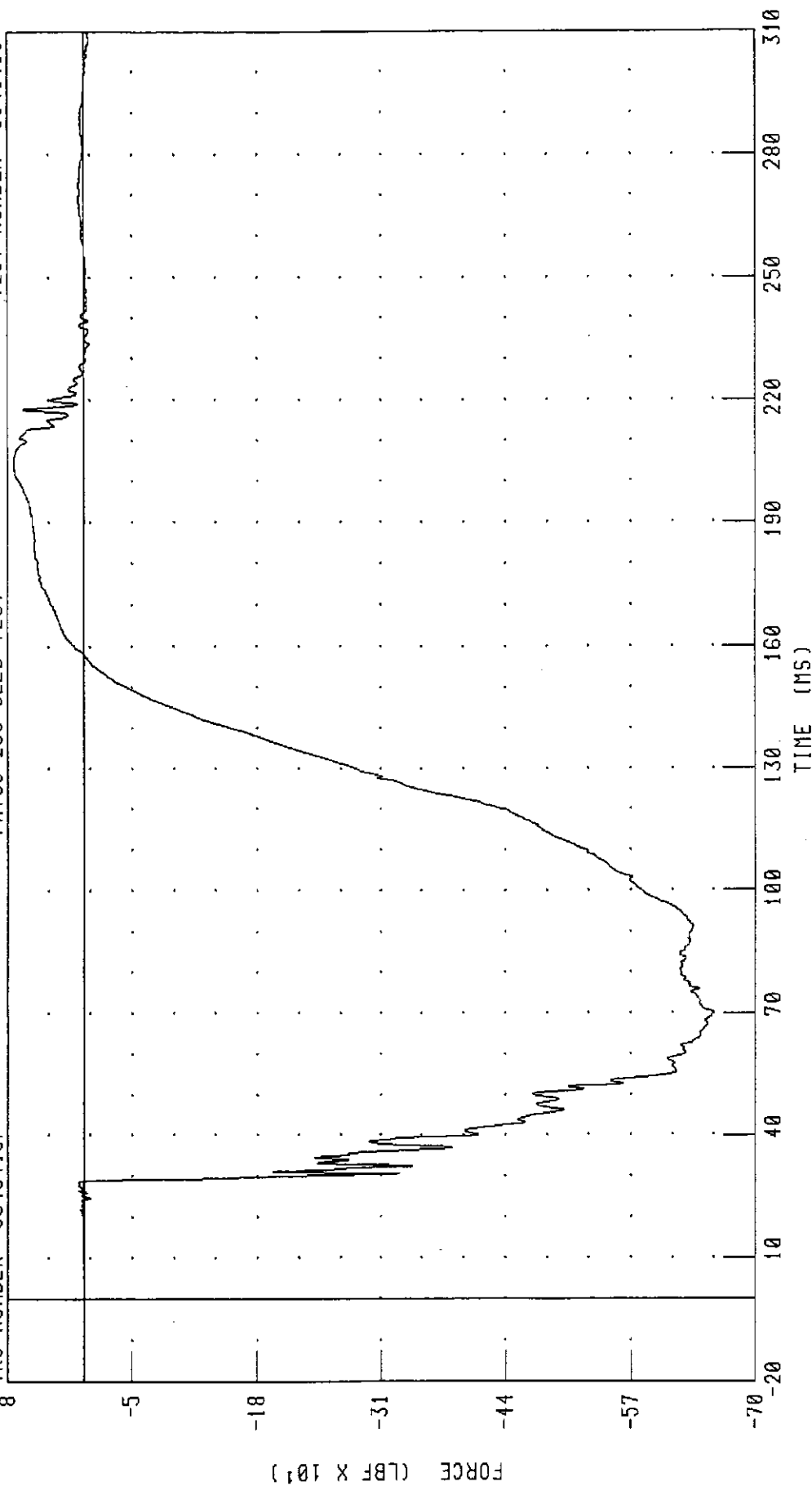
CHANNEL: CSTXD1 FILTER: CH. CLASS 600

PEAK DATA: 0.02 IN @ 46.40 MS; -0.87 IN @ 96.00 MS

C40307 / 2004 CHRYSLER PACIFICA
DRIVER LEFT FEMUR FORCE
FHVSS 208 SLED TEST

TRC NUMBER: S040419F

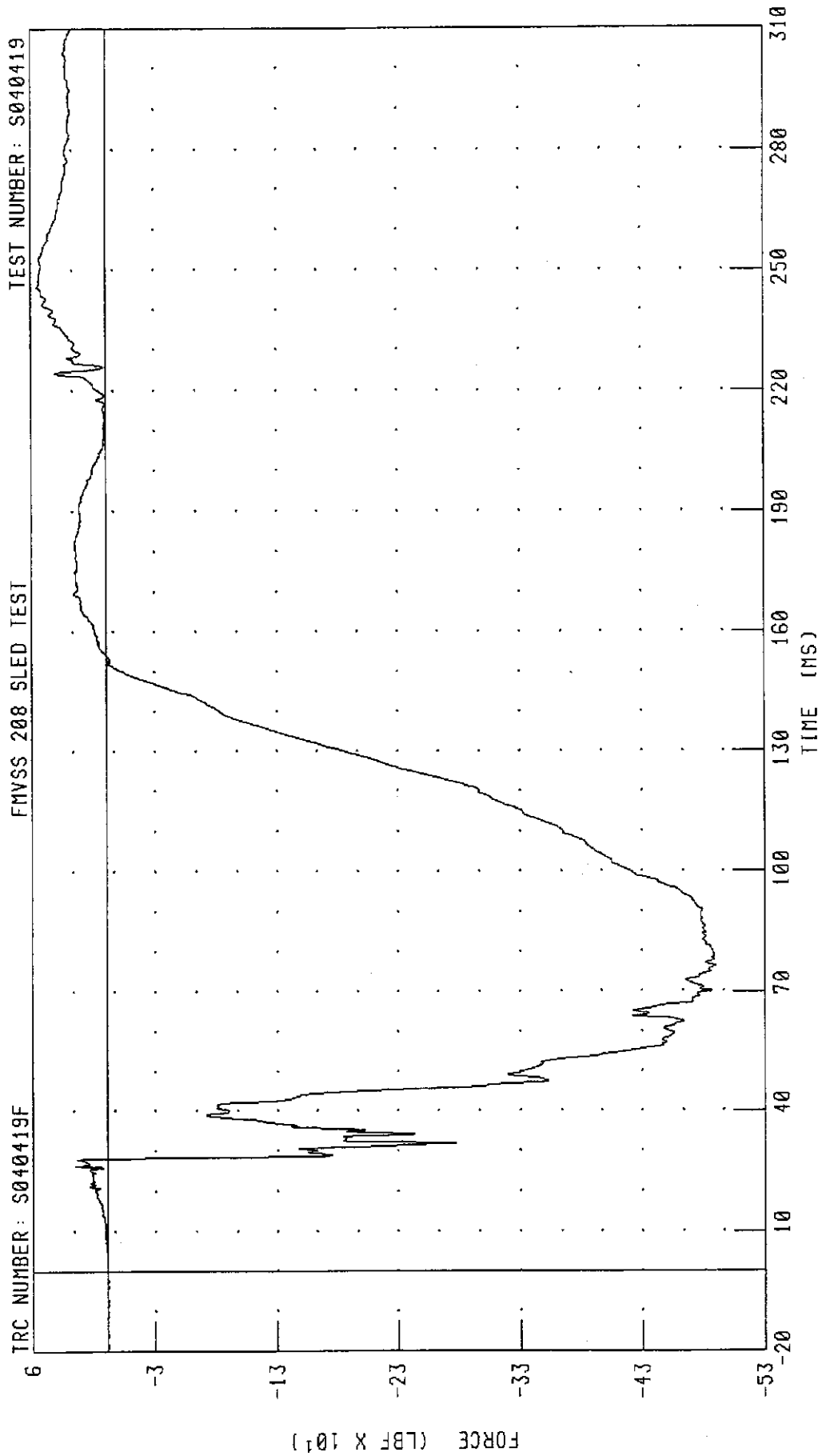
TEST NUMBER: S040419



CHANNEL: LFNZF1 FILTER: CH CLASS 600

PEAK DATA: 73.57 LBF @ 203.28 MS, -657.37 LBF @ 70.16 MS

C40307 / 2004 CHRYSLER PACIFICA
DRIVER RIGHT FEMUR FORCE
FMVSS 208 SLED TEST



CHANNEL: RFMZFI FILTER: CH. CLASS 600

PEAK DATA: 55.75 LBF @ 246.00 MS; -499.00 LBF @ 76.40 MS

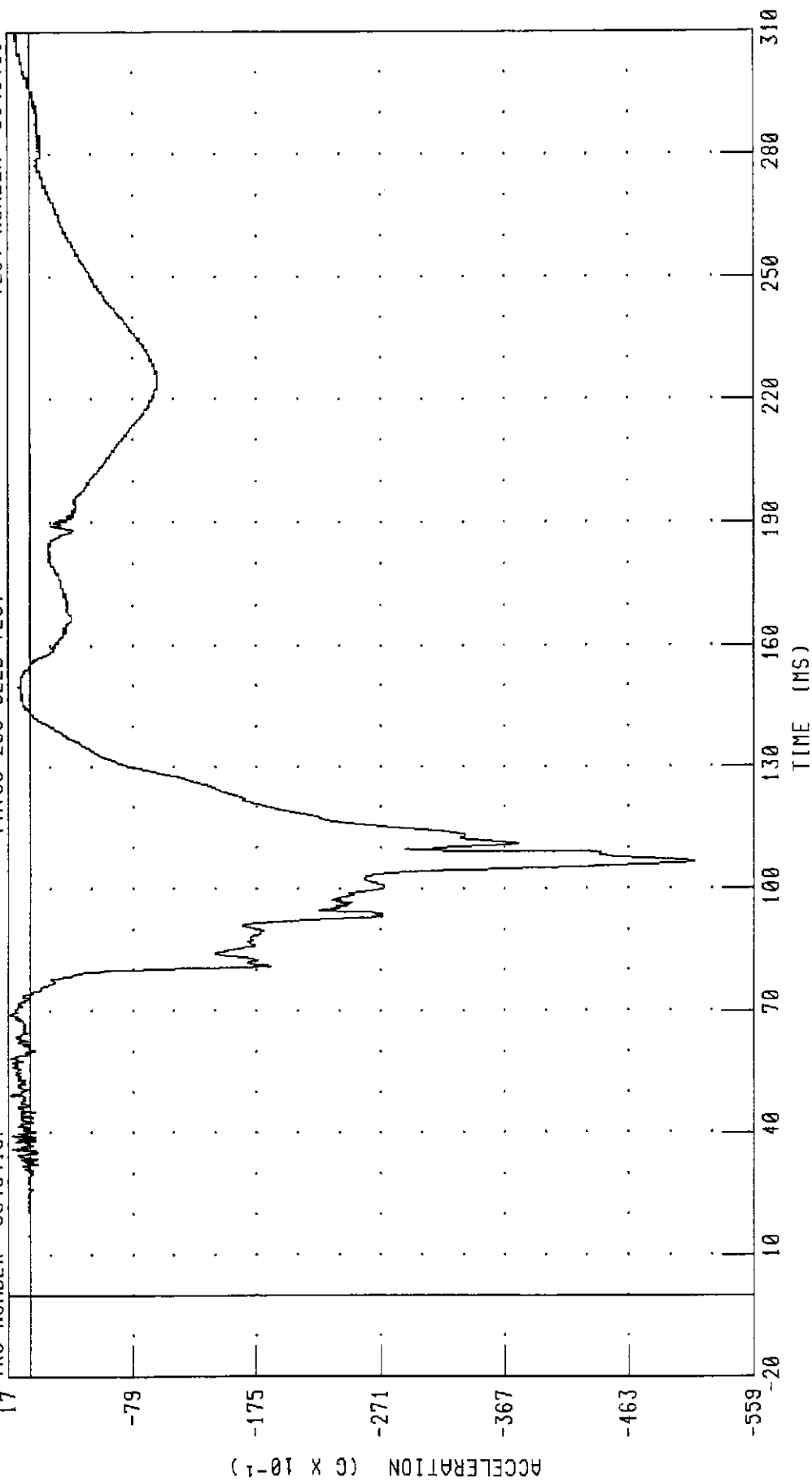
C40307 / 2004 CHRYSLER PACIFICA

RIGHT FRONT PASSENGER HEAD X-AXIS ACCELERATION

TRC NUMBER: S040419F

FMVSS 208 SLED TEST

TEST NUMBER: S040419



CHANNEL: HEDXC2 FILTER: CH. CLASS 1000

PEAK DATA: 1.57 G @ 49.36 MS, -51.26 G @ 106.56 MS

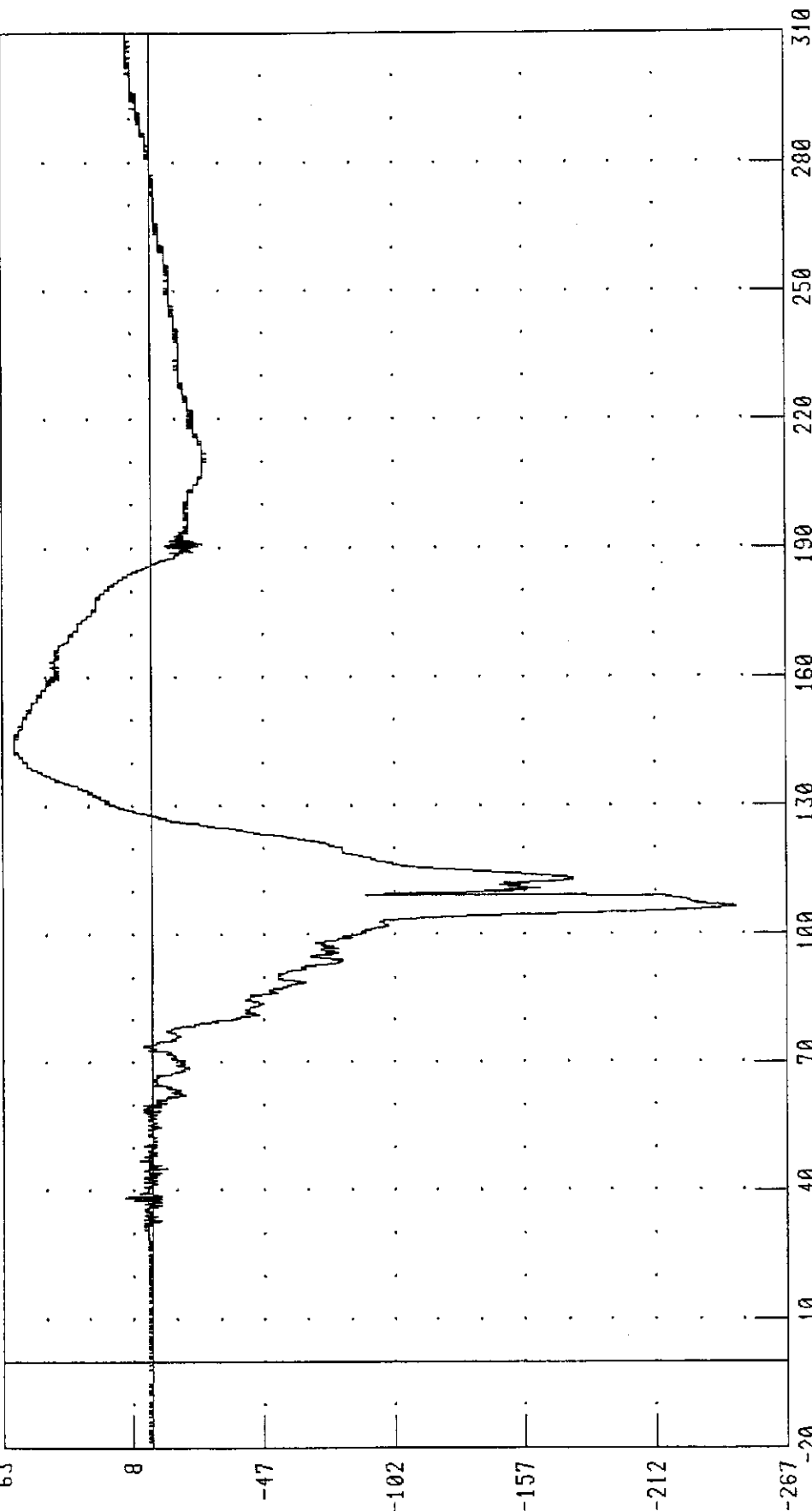
C40307 / 2004 CHRYSLER PACIFICA
RIGHT FRONT PASSENGER HEAD Y-AXIS ACCELERATION
FMVSS 208 SLED TEST

TEST NUMBER: S040419

TRC NUMBER: S040419F

63

ACCELERATION ($G \times 10^{-1}$)



TIME (MS)

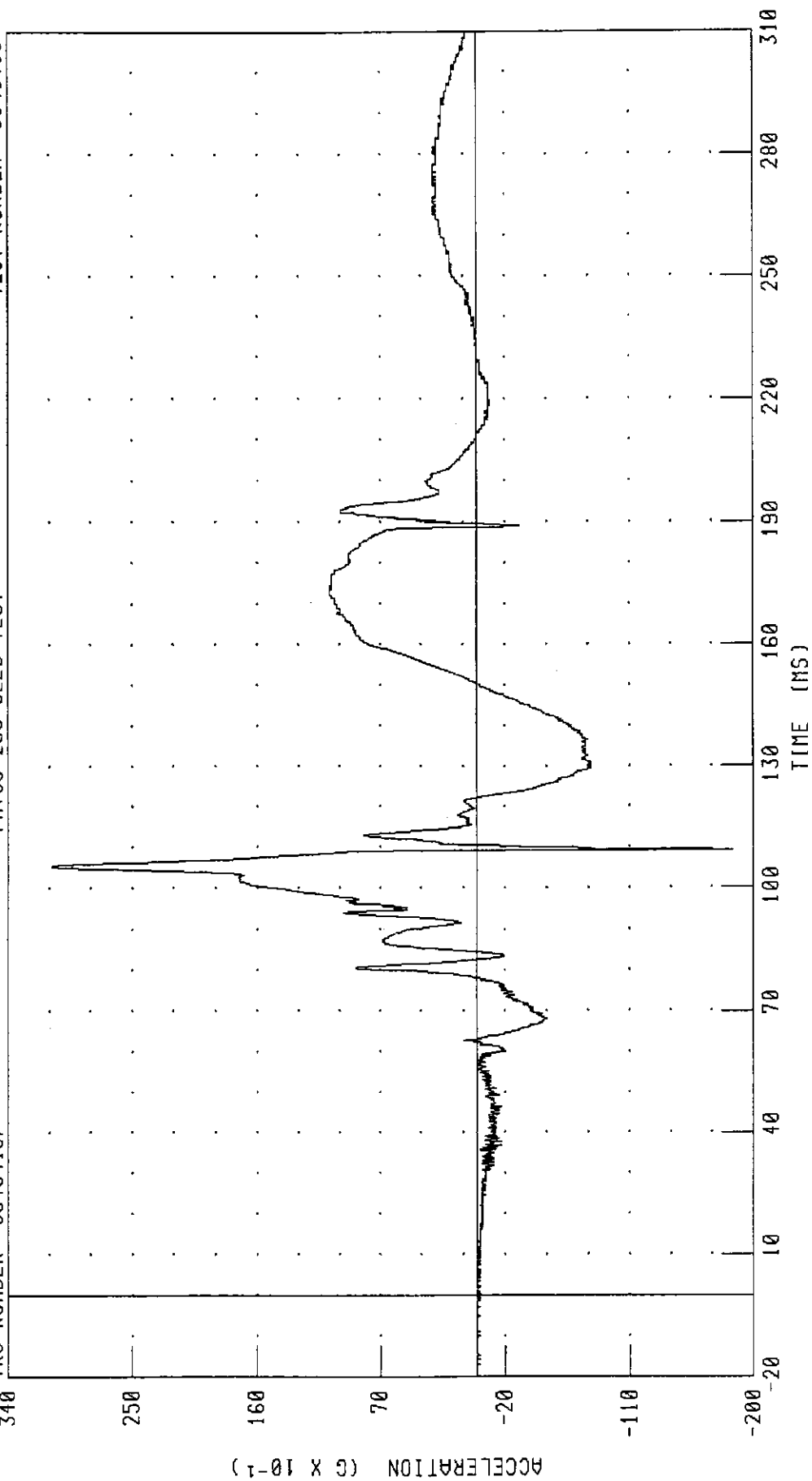
PEAK DATA: 5.81 G @ 142.64 MS; -24.55 G @ 106.32 MS

CHANNEL: HEDYC2 FILTER: CH. CLASS 1000

C40307 / 2004 CHRYSLER PACIFICA
 RIGHT FRONT PASSENGER HEAD Z-AXIS ACCELERATION
 FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



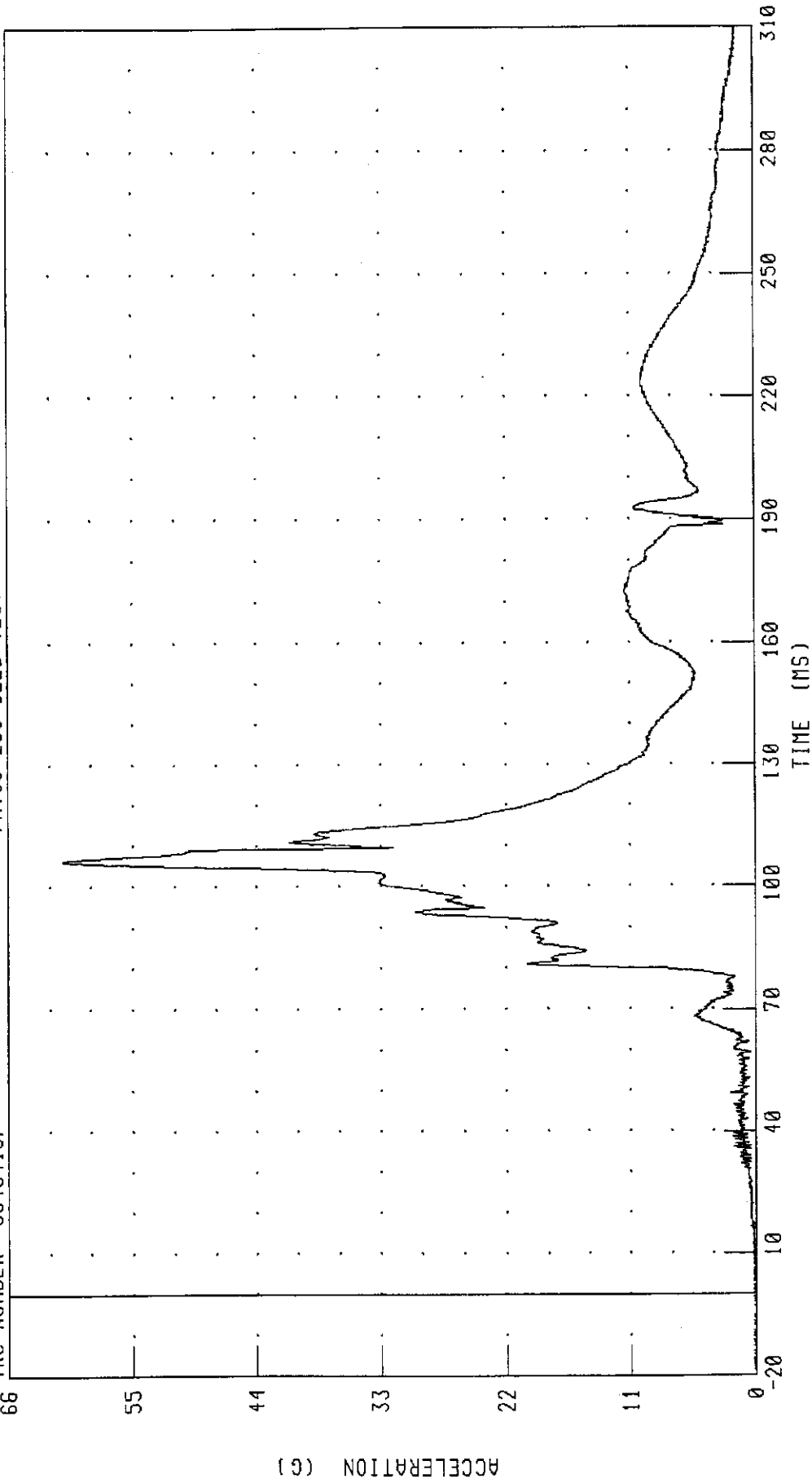
CHANNEL: HEDZG2 FILTER: CH. CLASS 1000

PEAK DATA: 30.78 G @ 105.28 MS; -18.50 G @ 109.36 MS

C40307 / 2004 CHRYSLER PACIFICA
RIGHT FRONT PASSENGER HEAD RESULTANT ACCELERATION
FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



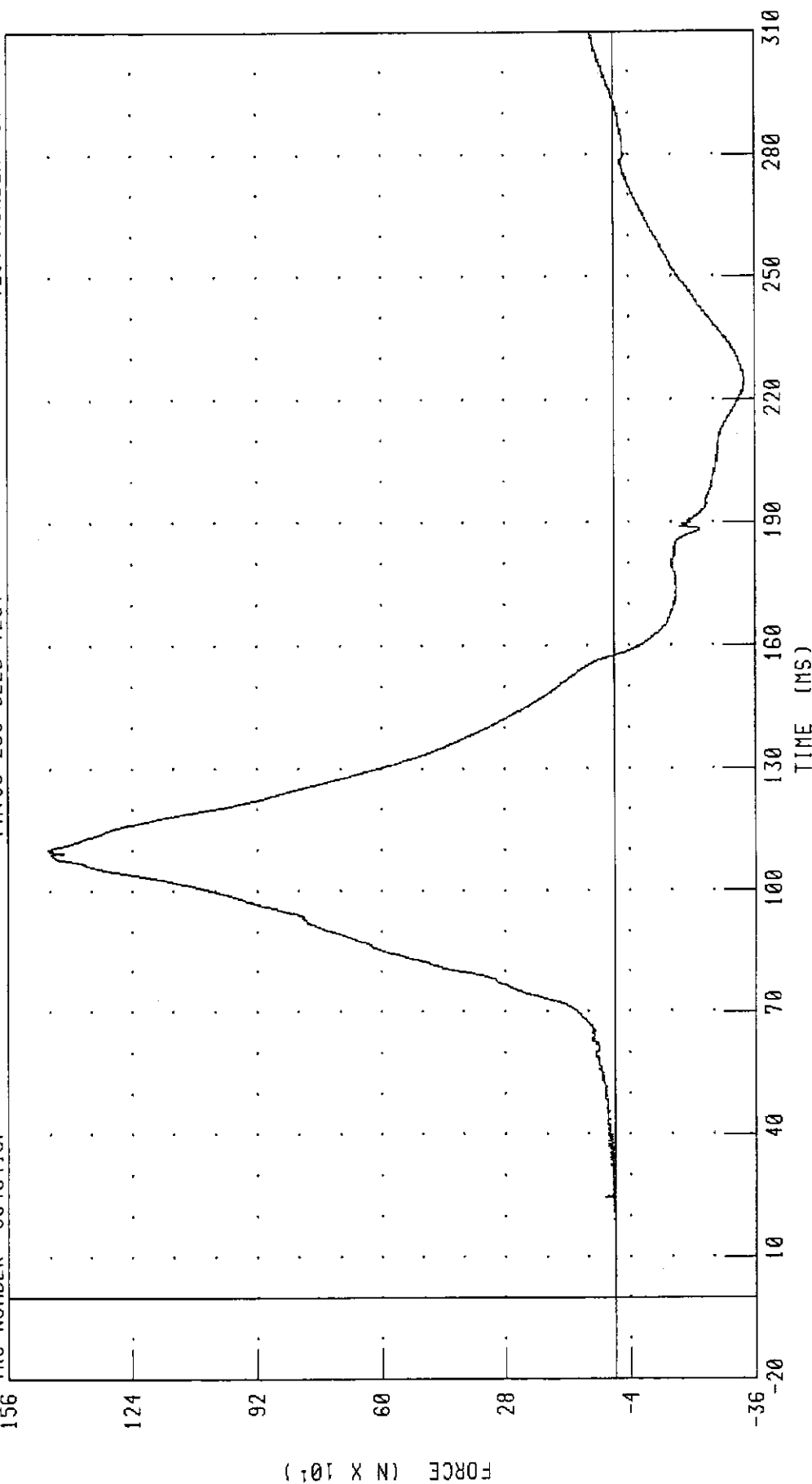
CHANNEL: HEDRG2 FILTER: CH. CLASS 1000

PEAK DATA: 61.21 G @ 106.40 MS; 0.03 G @ -20.00 MS

C40307 / 2004 CHRYSLER PACIFICA
RIGHT FRONT PASSENGER NECK X-AXIS SHEAR FORCE
FMVSS 208 SLED TEST

TRC NUMBER : S040419F

TEST NUMBER : S040419



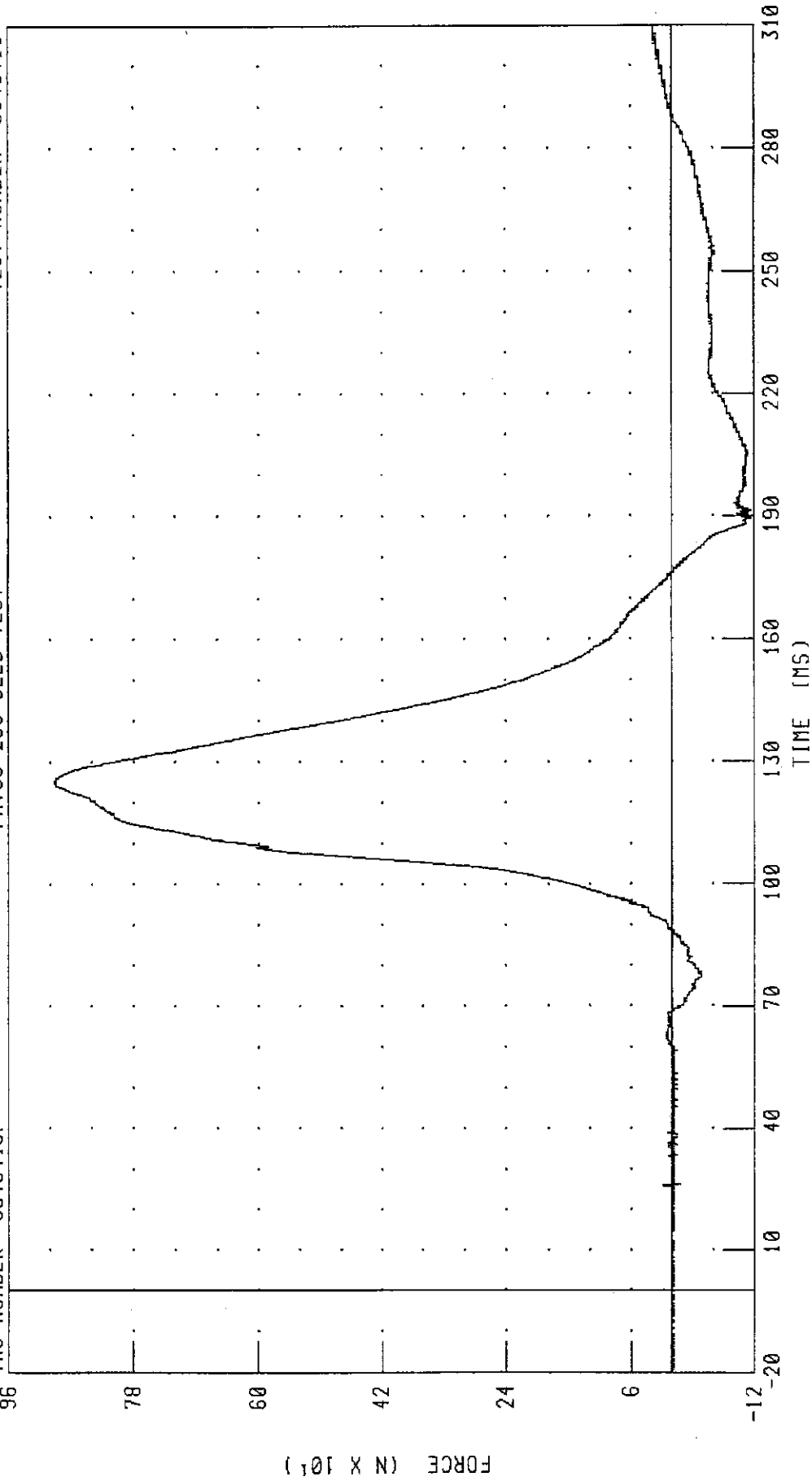
CHANNEL : NEKXF2 FILTER : CH CLASS 1000

PEAK DATA : 1459.60 N @ 110.16 MS, -333.87 N @ 223.20 MS

E40307 / 2004 CHRYSLER PACIFICA
RIGHT FRONT PASSENGER NECK Y-AXIS SHEAR FORCE
FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



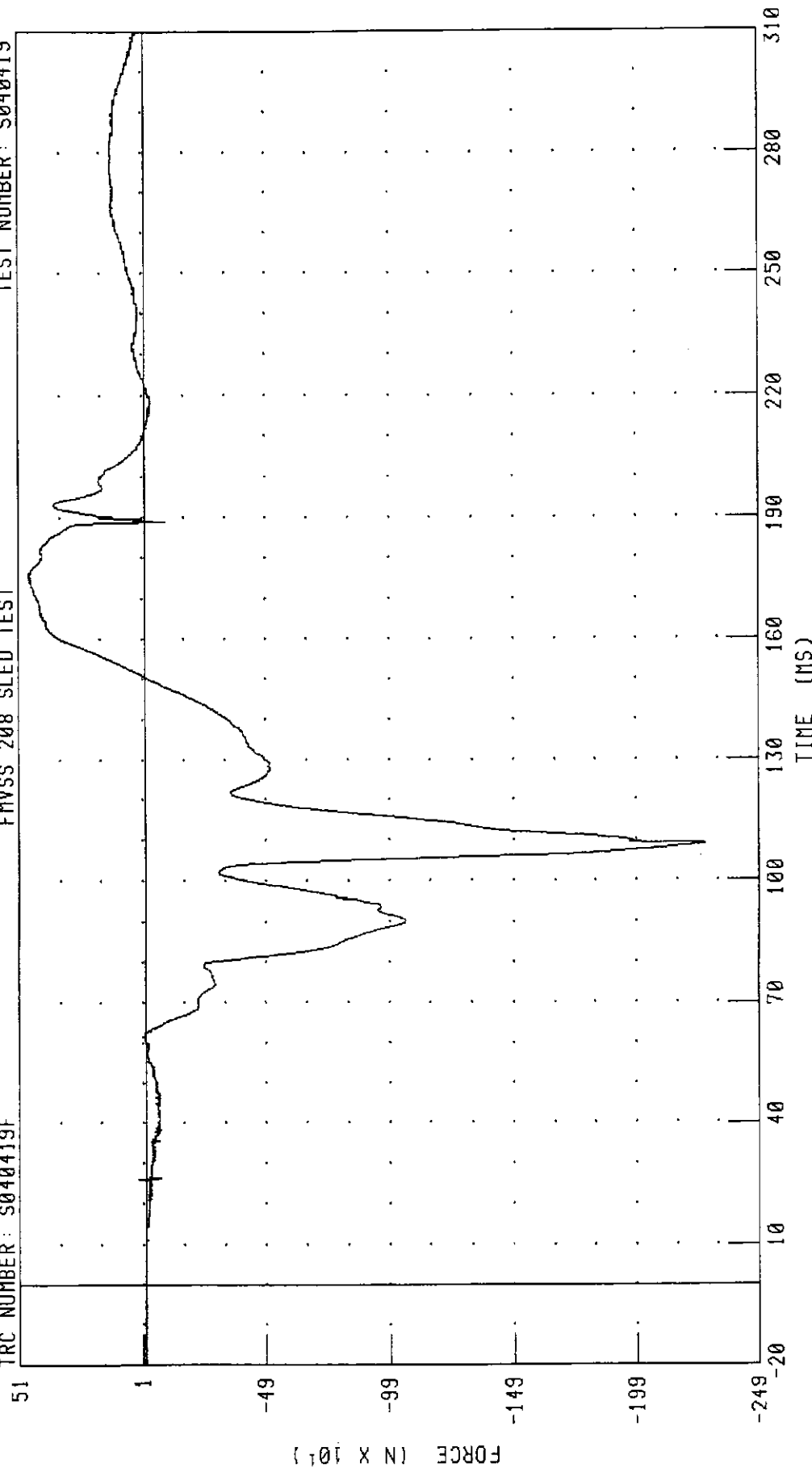
CHANNEL: NEKYF2 FILTER: CH. CLASS 1000

PEAK DATA: 895.50 N @ 124.88 MS, -115.94 N @ 189.36 MS

C40307 / 2004 CHRYSLER PACIFICA
 RIGHT FRONT PASSENGER NECK Z-AXIS AXIAL FORCE
 FMVSS 208 SLED TEST

TEST NUMBER: S040419

TRC NUMBER: S040419F



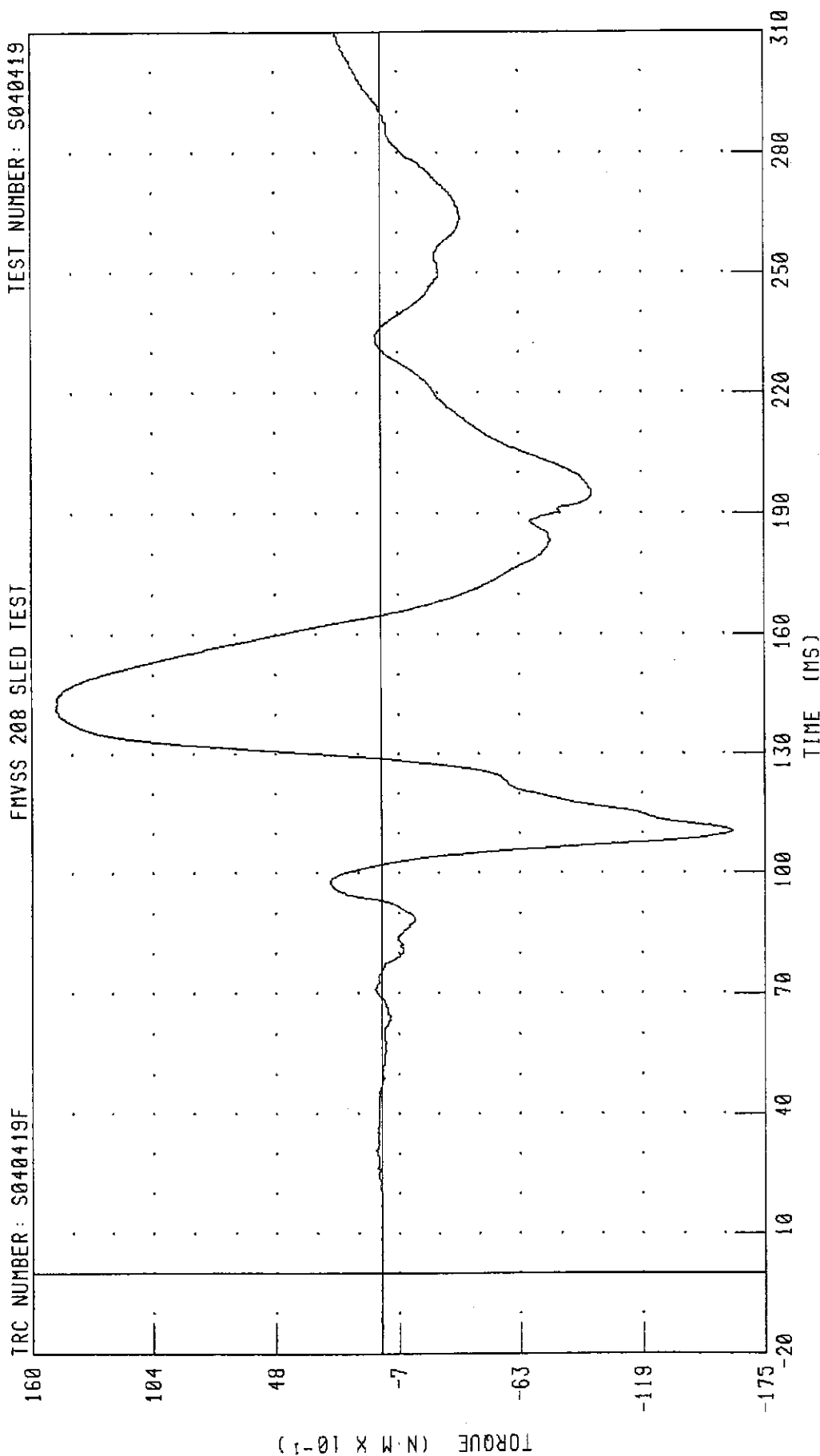
PEAK DATA: 466.63 N @ 174.16 MS, -2269.45 N @ 108.96 MS

CHANNEL: NEKZF2 FILTER: CH. CLASS 1000

C40307 / 2004 CHRYSLER PACIFICA
RIGHT FRONT PASSENGER NECK MOMENT ABOUT X AXIS
FMVSS 208 SLED TEST

TEST NUMBER: S040419

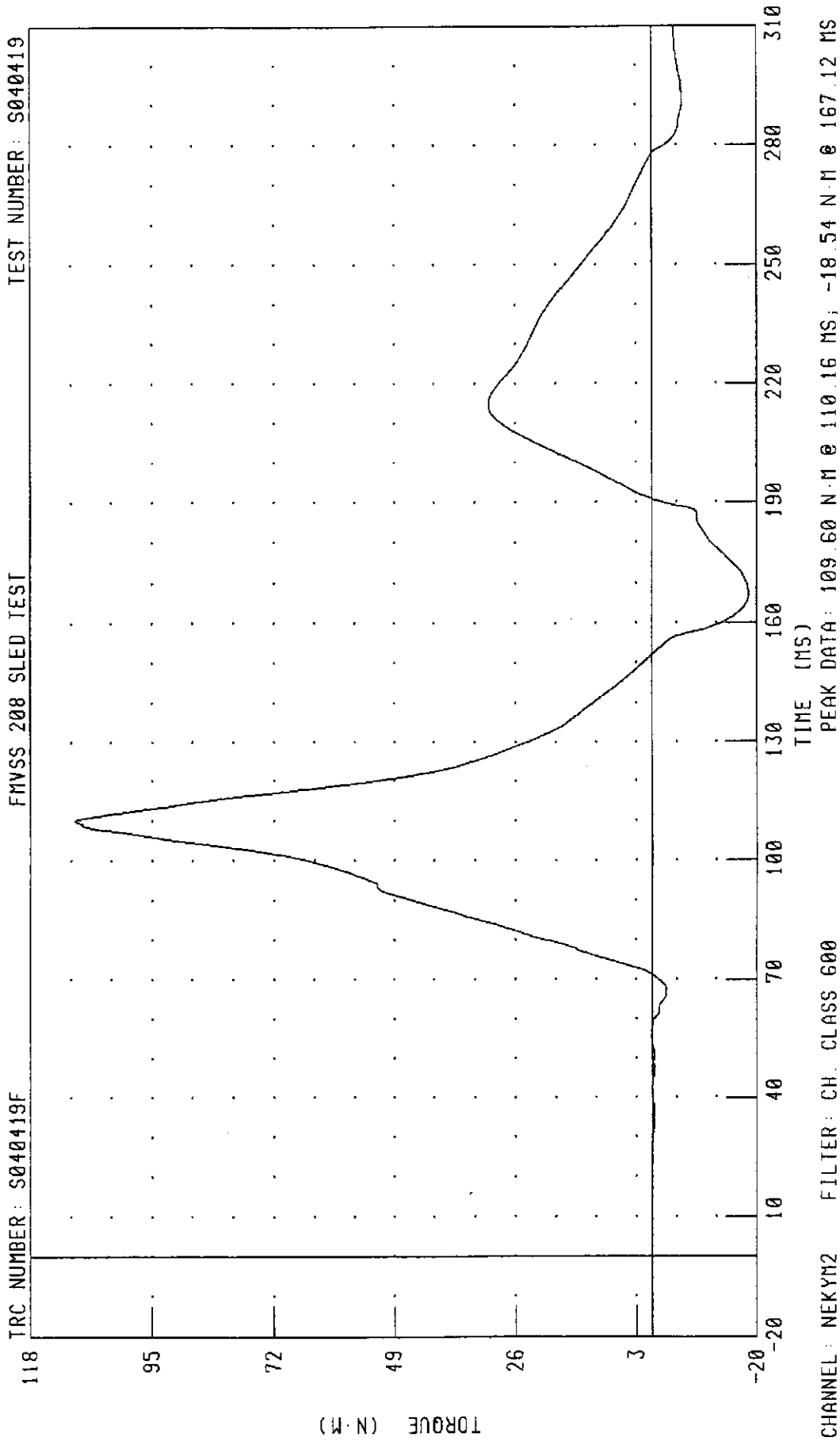
TRC NUMBER: S040419F



CHANNEL: NEKX12 FILTER: CH. CLASS 600

PEAK DATA: 14.87 N·M @ 141.44 MS; -15.11 N·M @ 110.64 MS

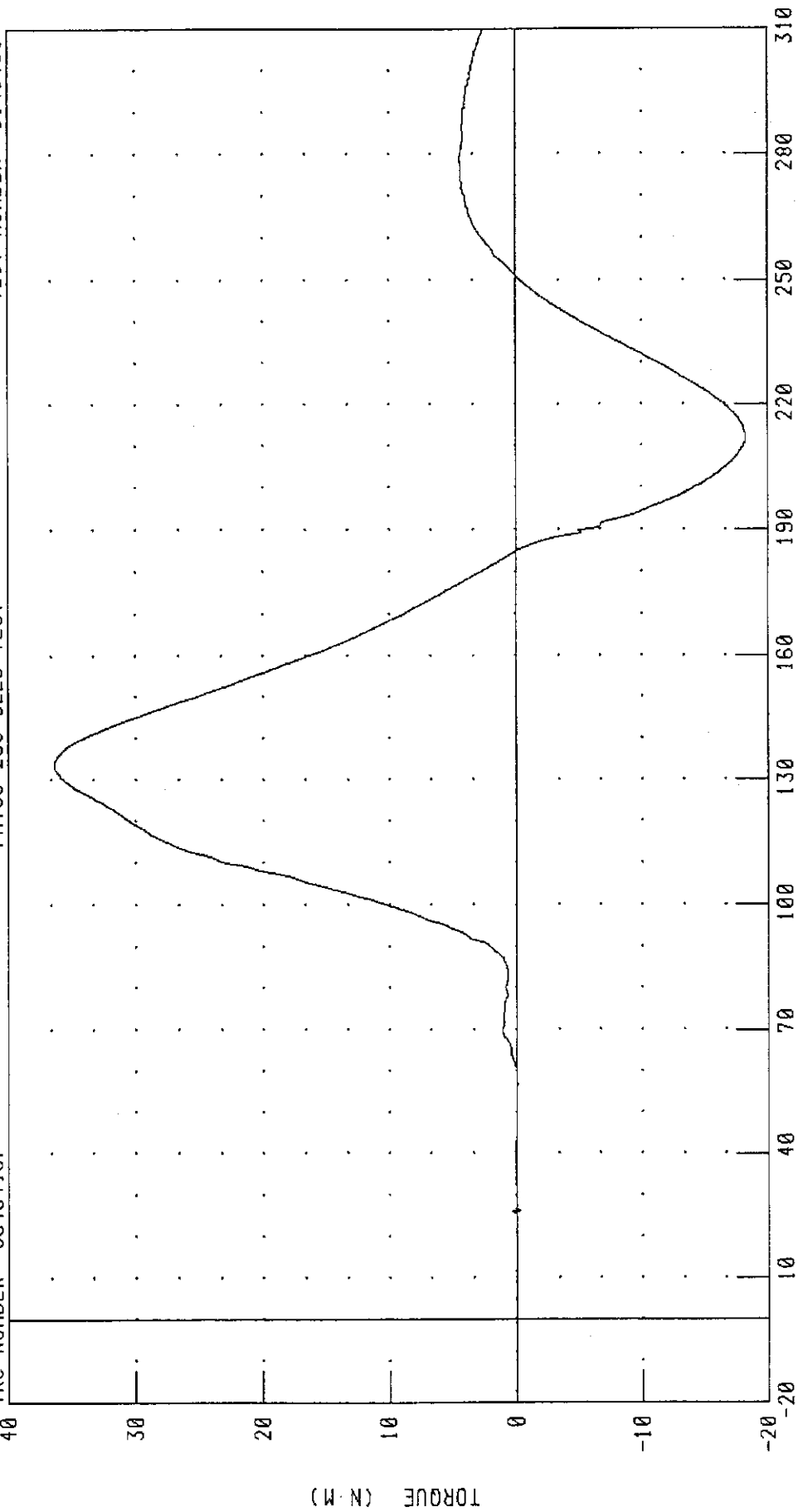
C40307 / 2004 CHRYSLER PACIFICA
RIGHT FRONT PASSENGER NECK MOMENT ABOUT Y AXIS
FMVSS 208 SLED TEST



C40307 / 2004 CHRYSLER PACIFICA
RIGHT FRONT PASSENGER NECK MOMENT ABOUT Z AXIS
FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



CHANNEL: NEKZM2 FILTER: CH. CLASS 600

PEAK DATA: 36.42 N-M @ 133.92 MS, -18.21 N-M @ 210.88 MS

TORQUE (N-M)

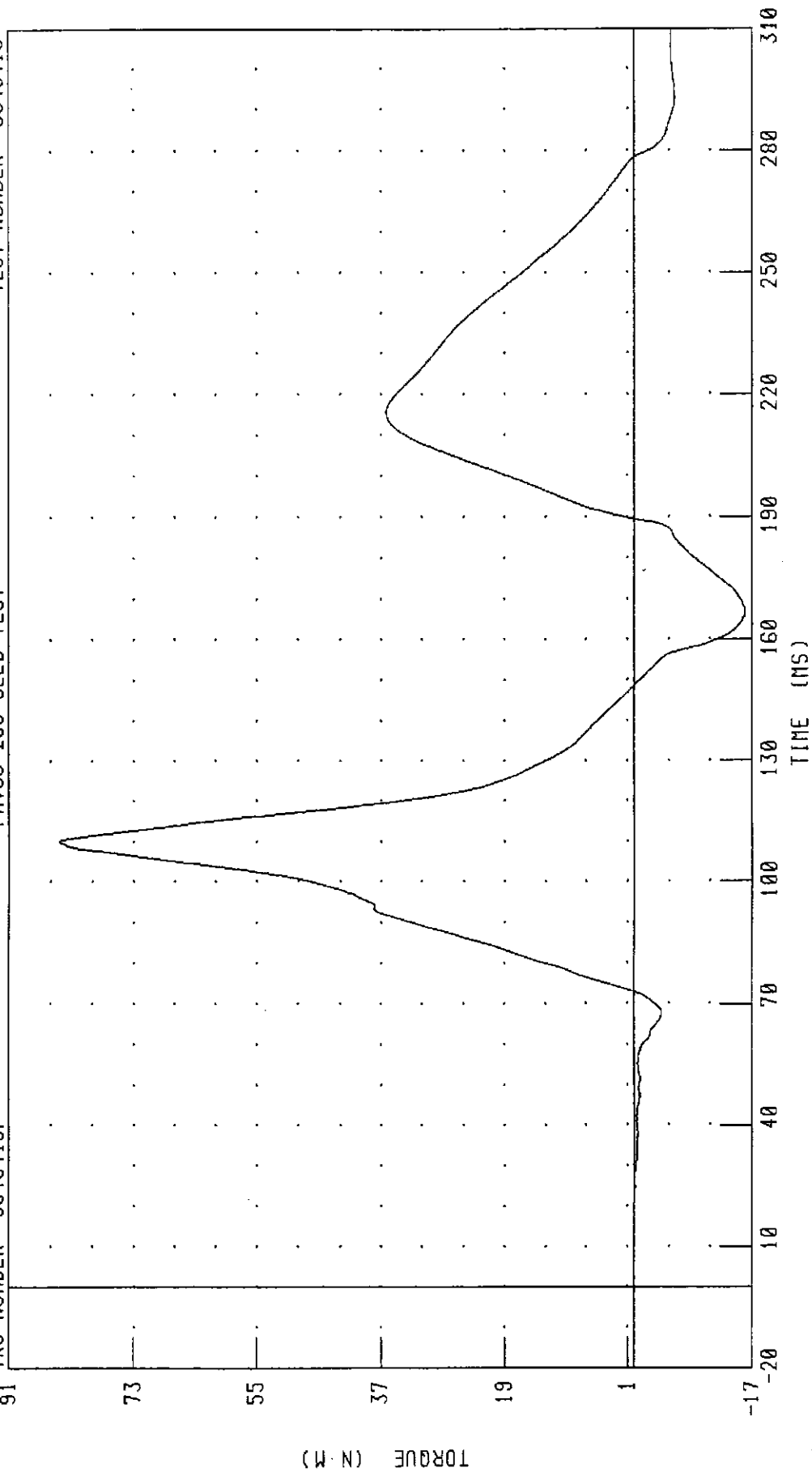
C40307 / 2004 CHRYSLER PACIFICA

RIGHT FRONT PASSENGER NECK MOMENT ABOUT Y AXIS OCCIPITAL CONDYLE

TRC NUMBER: S040419F

FMVSS 208 SLED TEST

TEST NUMBER: S040419



TIME (MS)

CHANNEL: NEK0M2 FILTER: CH CLASS 600

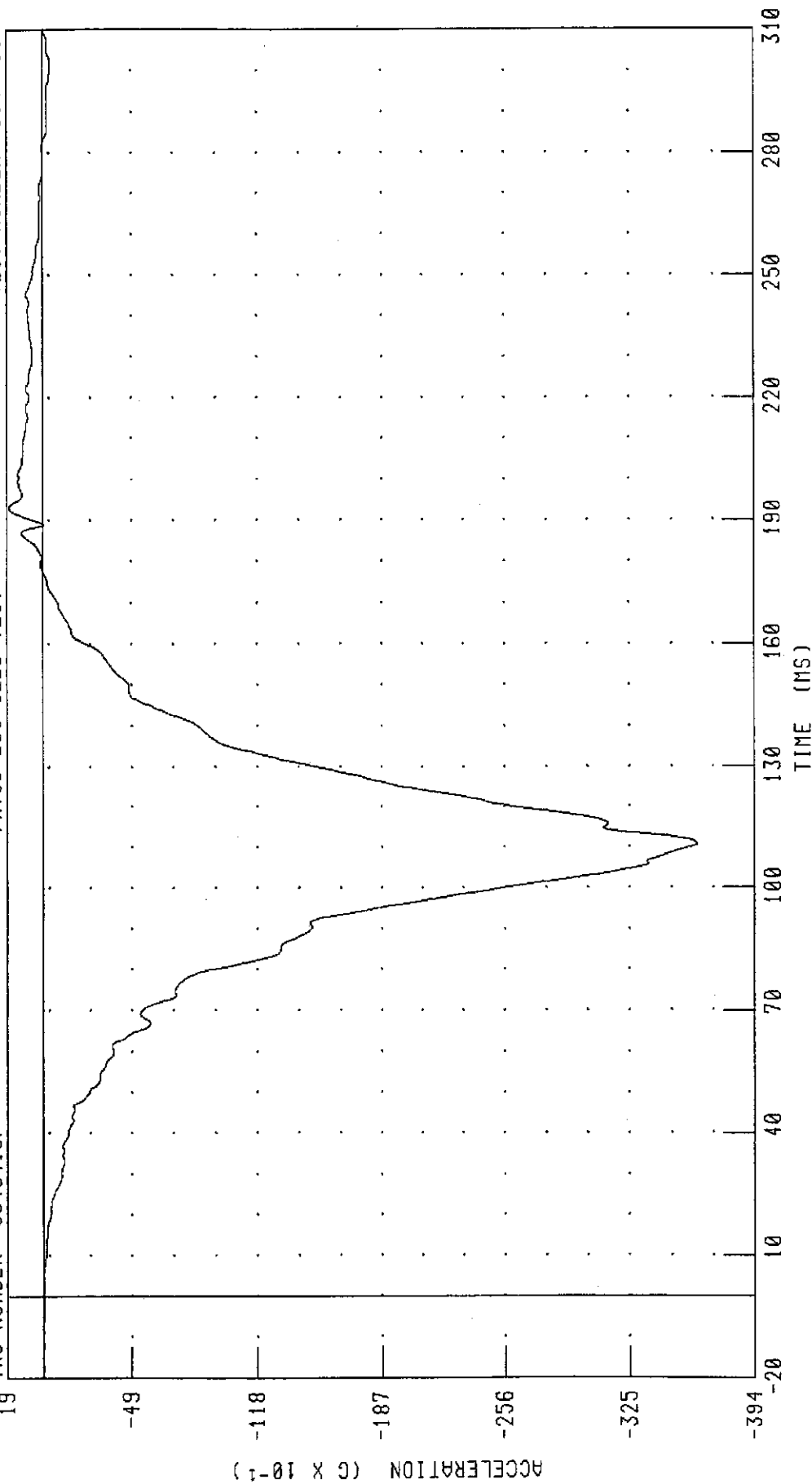
PEAK DATA: 83.73 N·M @ 110.08 MS, -16.00 N·M @ 167.20 MS

TORQUE (N·M)

C40307 / 2004 CHRYSLER PACIFICA
 RIGHT FRONT PASSENGER CHEST X-AXIS ACCELERATION
 FMVSS 208 SLED TEST

TEST NUMBER: S040419

TRC NUMBER: S040419F



CHANNEL: CSTXG2 FILTER: CH. CLASS 180

PEAK DATA: 1.90 G @ 193.20 MS, -36.17 G @ 110.72 MS

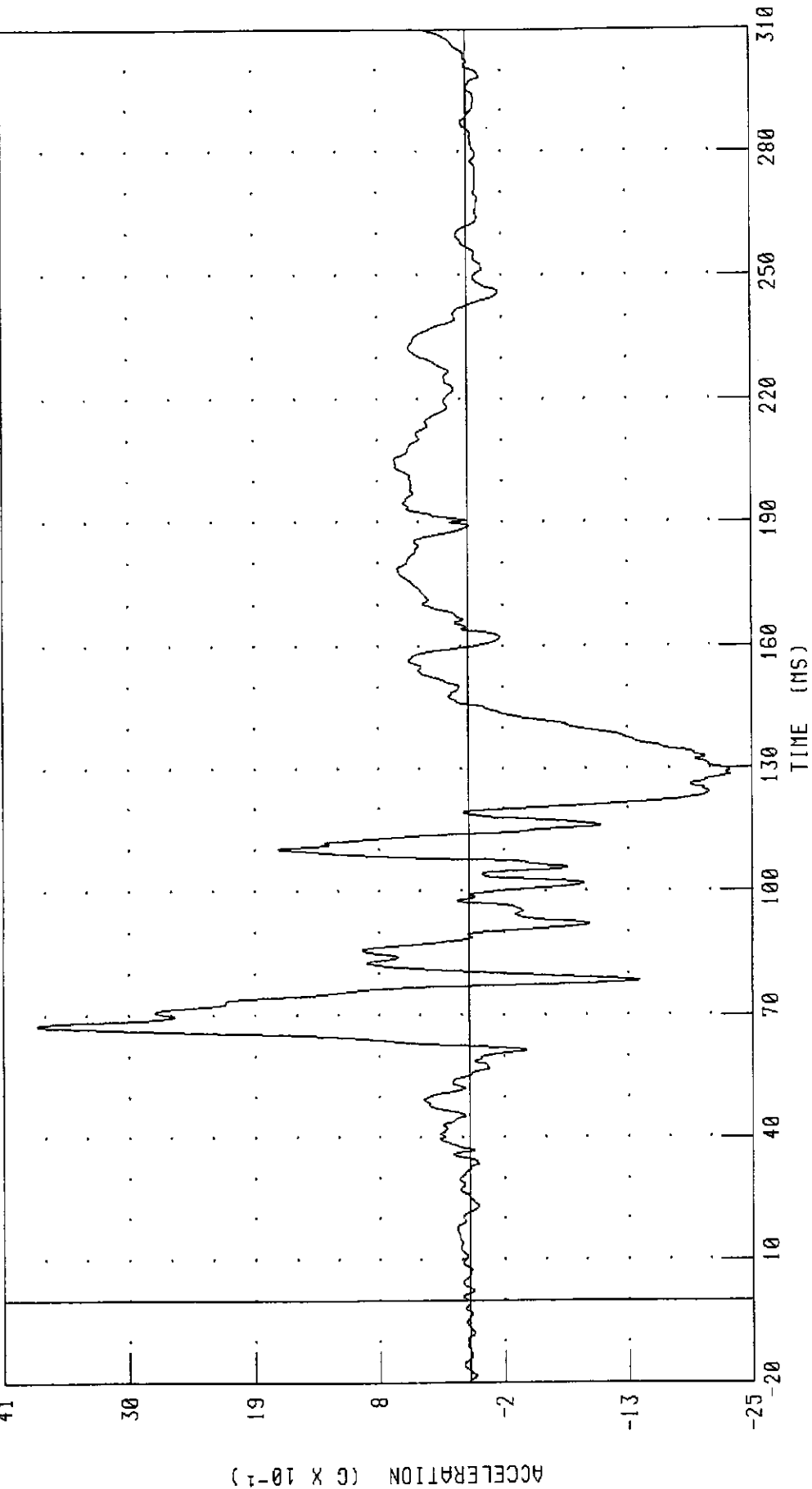
C40307 / 2004 CHRYSLER PACIFICA

RIGHT FRONT PASSENGER CHEST Y-AXIS ACCELERATION

FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



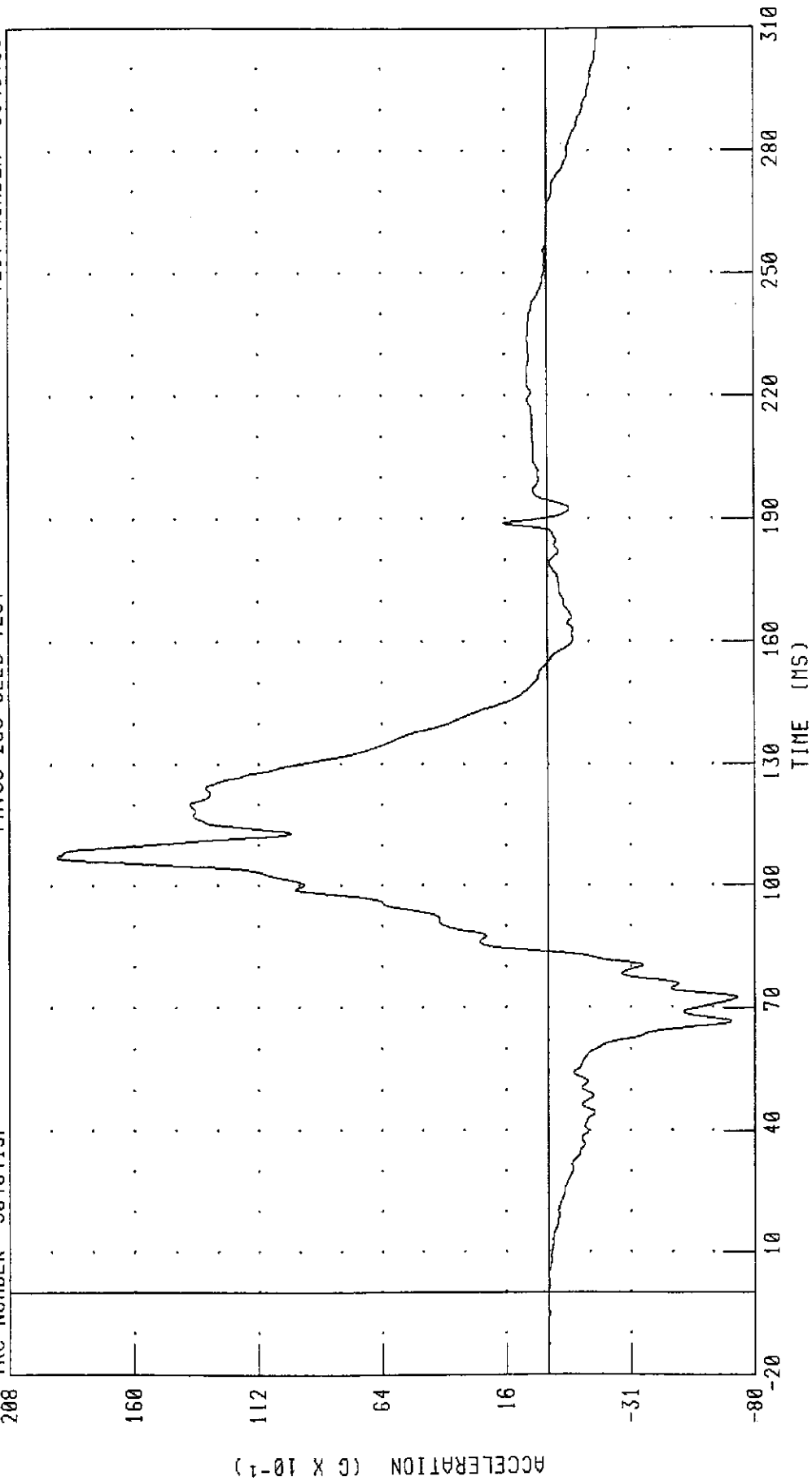
CHANNEL: CSTYC2 FILTER: CH. CLASS 180

PEAK DATA: 3.81 G @ 67.60 MS; -2.31 G @ 128.48 MS

C40307 / 2004 CHRYSLER PACIFICA
RIGHT FRONT PASSENGER CHEST Z-AXIS ACCELERATION
FMVSS 208 SLED TEST

TRC NUMBER: S040419F

TEST NUMBER: S040419



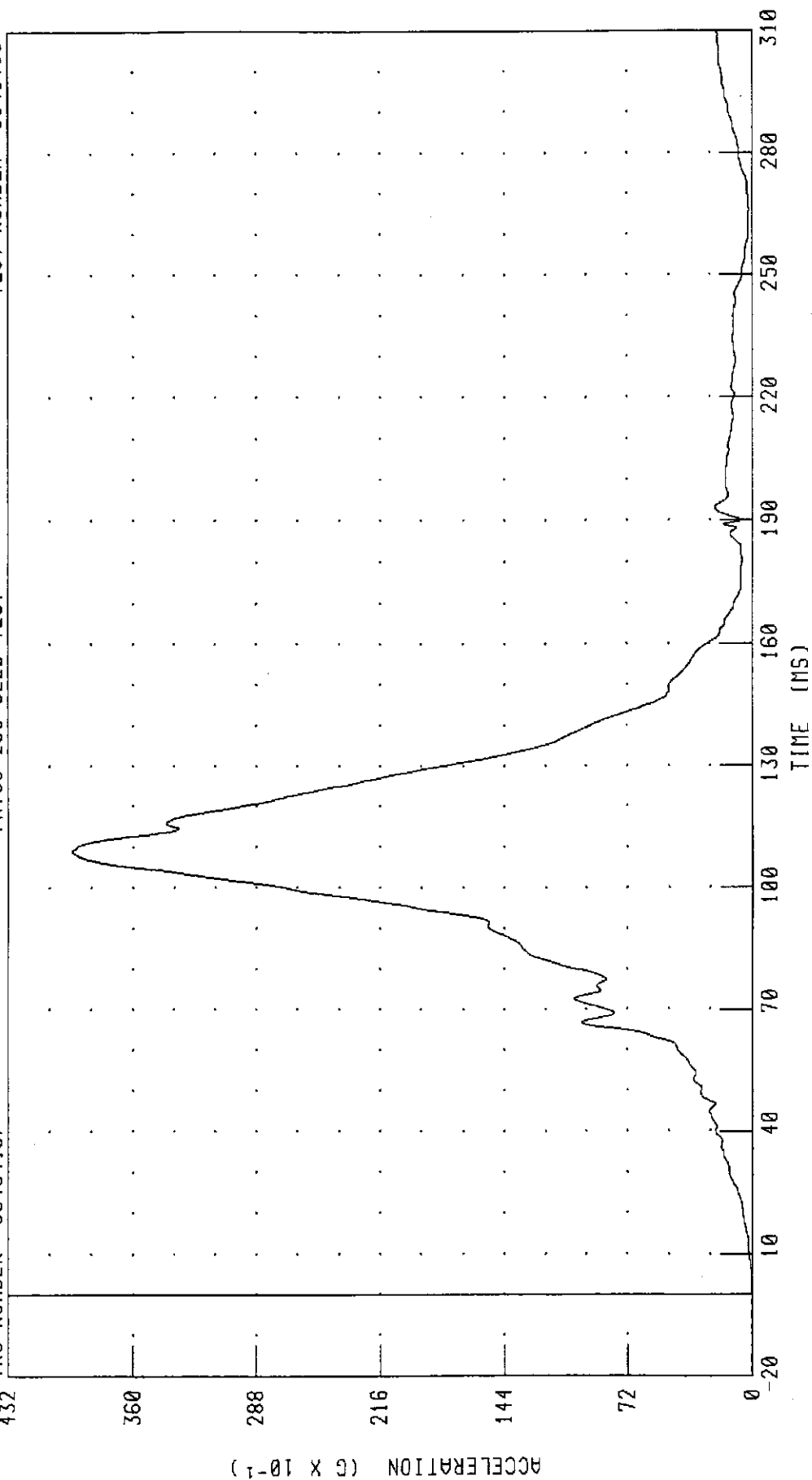
CHANNEL: CSTZG2 FILTER: CH. CLASS 180

PEAK DATA: 19.00 G @ 107.20 MS; -7.30 G @ 72.48 MS

C40307 / 2004 CHRYSLER PACIFICA
 RIGHT FRONT PASSENGER CHEST RESULTANT ACCELERATION
 FMVSS 208 SLED TEST

TRC NUMBER: S040419F

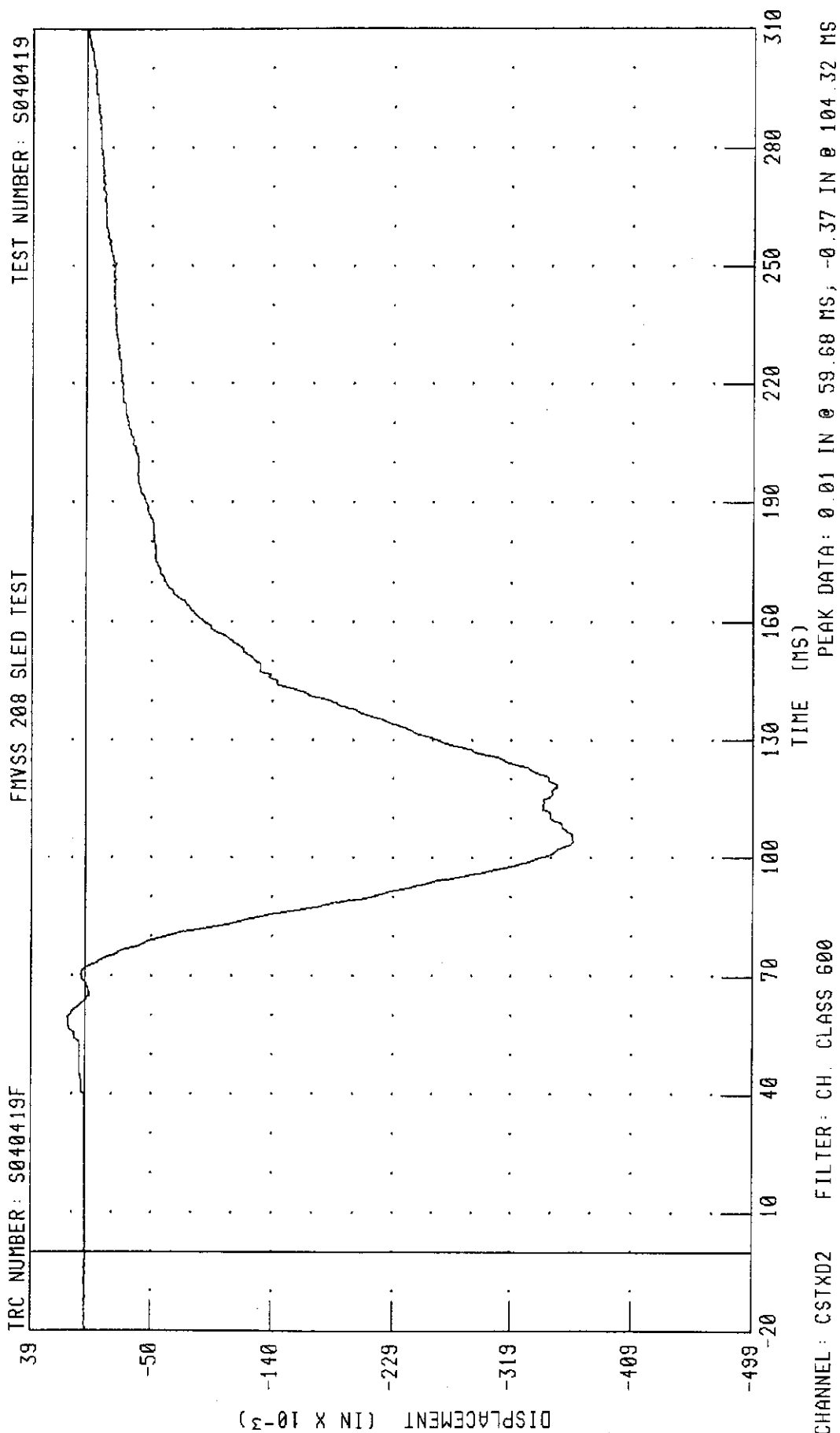
TEST NUMBER: S040419



CHANNEL: CSTRG2 FILTER: CH. CLASS 180

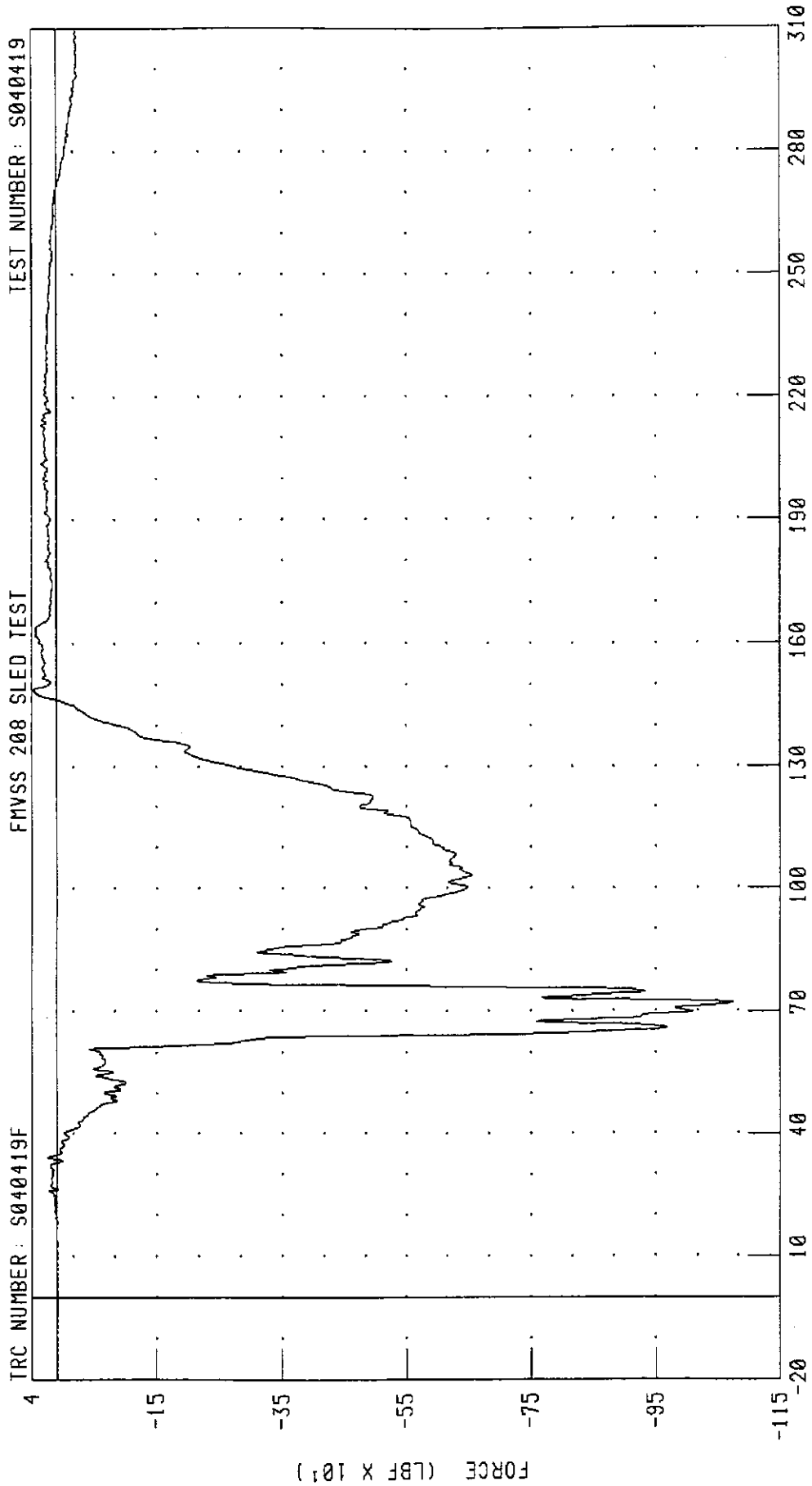
PEAK DATA: 39.51 G @ 108.96 MS; 0.00 G @ -6.64 MS

C40307 / 2004 CHRYSLER PACIFICA
 RIGHT FRONT PASSENGER CHEST DEFLECTION
 FMVSS 208 SLED TEST



CHANNEL: CSTXD2 FILTER: CH CLASS 600

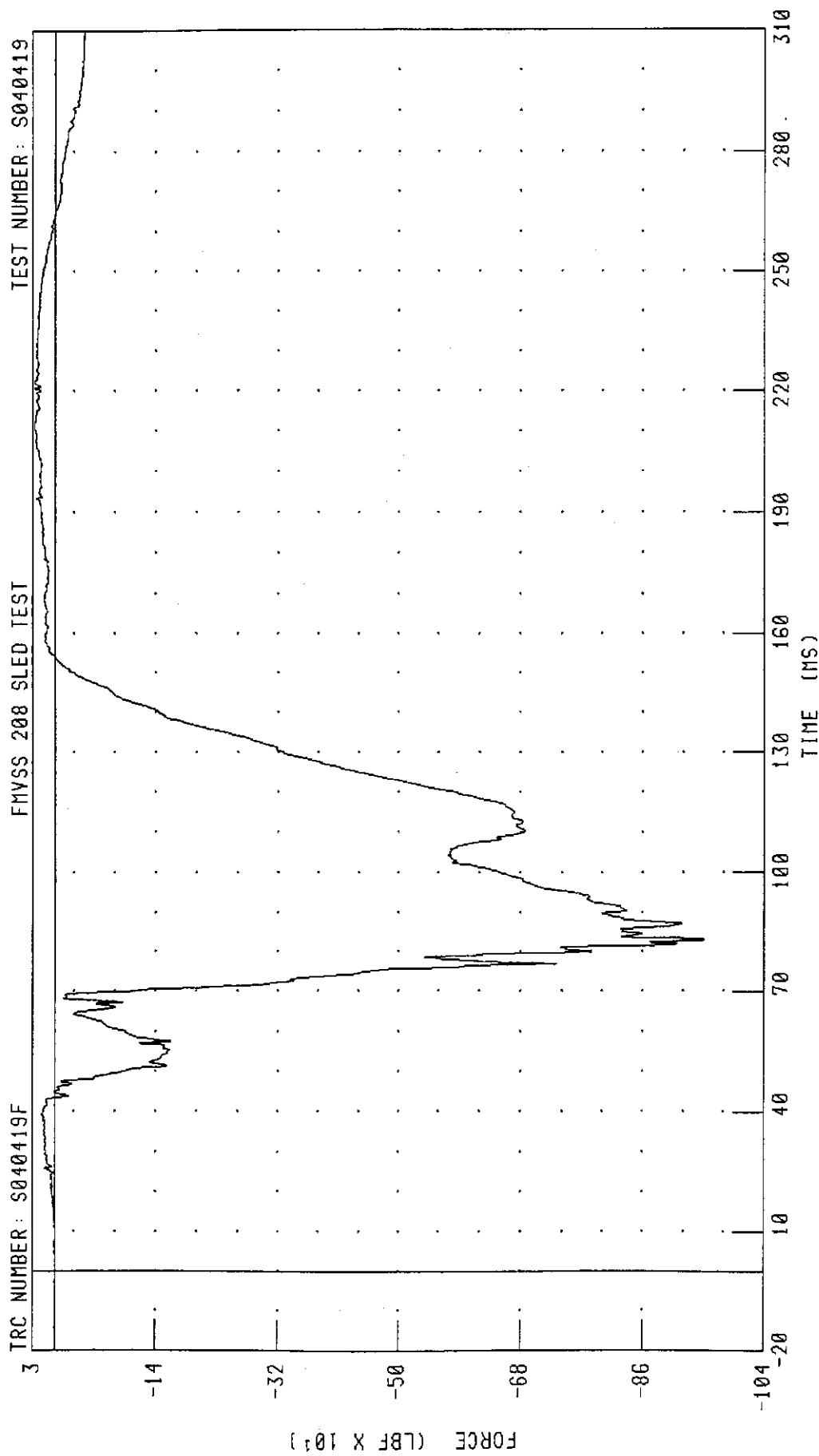
C40307 / 2004 CHRYSLER PACIFICA
RIGHT FRONT PASSENGER LEFT FEMUR FORCE



CHANNEL: LFMZF2 FILTER: CH. CLASS 600

PEAK DATA: 37.96 LBF @ 148.80 MS; -1084.02 LBF @ 72.00 MS

C40307 / 2004 CHRYSLER PACIFICA
RIGHT FRONT PASSENGER RIGHT FEMUR FORCE
FMVSS 208 SLED TEST



CHANNEL: RFMZF2 FILTER: CH. CLASS 600

Appendix C

Manufacturer's Vehicle Information

DAIMLERCHRYSLER

DaimlerChrysler Corporation
Stephan J. Speth
Director
Vehicle Compliance & Safety Affairs

December 12, 2003

Mr. Harry Thompson, Chief
Office of Vehicle Safety Compliance
National Highway Traffic Safety Administration
U.S. Department of Transportation
400 Seventh Street, S. W., Room 6111
Washington, DC 20590

Dear Mr. Thompson

Reference: **NVS-221CCa/OA-208-031016-D; FMVSS 208**
2004 MY Chrysler Pacifica

The following is provided in response to your October 28, 2003 information request.

Q1. Restraint system information:

- 1.1 Describe the difference between the MY 2004 air bag restraint system and the 2003 system.
- 1.2 Describe what other restraint system changes have been made.
- 1.3 Describe other vehicle changes that may affect FMVSS 208 performance.
- 1.4 Describe any features that may affect occupant protection performance with respect to children and out of position occupants.
- 1.5 State whether the vehicle is equipped with a FMVSS 208 air bag on-off switch for the passenger frontal air bag.

- A1.1 The Chrysler Pacifica is an all new vehicle design for the 2004 MY. Therefore, this question does not apply.
- A1.2 The Chrysler Pacifica is an all new vehicle design for the 2004 MY. Therefore, this question does not apply.
- A1.3 The Chrysler Pacifica is an all new vehicle design for the 2004 MY. Therefore, this question does not apply.
- A1.4 The 2004 MY Chrysler Pacifica has multi-stage air bag inflators that inflate at different rates depending upon impact severity.
- A1.5 The 2004 MY Chrysler Pacifica does not qualify for a manual air bag on-off switch.

Q2. Advanced air bag vehicles – State whether the vehicle model is certified to the advanced air bag requirements of section S14 of FMVSS 208.

2.1 Crash tests:

- 2.1.1 A copy of the certification test reports for belted and unbelted crash tests (frontal, angular, and offset) using the 5th percentile female dummy and the 50th percentile male dummy.

- 2.1.2 The width of the vehicle as defined in S18.2.4, the location at which the maximum dimension was measured, and any other information and measurements used to position the vehicle for the offset crash test at 40 percent overlap.
- 2.2 5th female low risk deployment:
 - 2.2.1 A copy of the 5th female low risk deployment certification tests.
 - 2.2.2 For air bags with dual stage or multi-stage inflators, describe the inflator stage or combination of inflator stages or time delay between successive inflator stages used for low risk deployment.
 - 2.2.3 A copy of the tests and analyses that were used to determine the inflator stage or combination of inflator stages or time delay between successive inflator stages used for the low risk deployment test. (S26.4)
 - 2.2.4 The location of the "geometric center of the opening through which the air bag deploys into the occupant compartment."
 - 2.2.5 Describe how to disconnect the air bags and trigger the appropriate inflator stages.
- 2.3 Children low risk deployment (if applicable) – State the low risk deployment sections (S19.3, S21.4, and S23.4) of FMVSS 208 to which the vehicle model is certified.
 - 2.3.1 When certified to low risk deployment for children, a copy of the certification test report for each child restraint (12-month-old) and/or child position (3-year-old, 6-year-old).
 - 2.3.2 For air bags with dual stage or multi-stage inflators, describe the inflator stage or combination of inflator stages or time delay between successive inflator stages used for low risk deployment.
 - 2.3.3 A copy of the tests and analyses that were used to determine the inflator stage or combination of inflator stages or time delay between successive inflator stages used for the low risk deployment tests. (S20.4.9, S22.4.4 and S24.4.4)
 - 2.3.4 The location of the "geometric center of the opening through which the air bag deploys into the occupant compartment."
 - 2.3.5 Describe how to disconnect the air bags and trigger the appropriate inflator stages.
- 2.4. Suppression (if applicable) – State the low risk deployment sections (S19.2, S21.2, and S23.2) of FMVSS 208 to which the vehicle model is certified.
 - 2.4.1 A representative test report for each type of suppression test (12-month-old, 3-year-old, 6-year-old) and a reactivation test report using a 5th percentile female dummy.
 - 2.4.2 State whether dummies or humans were used. If humans were used provide the method to deactivate the air bag during suppression tests, identify any parts or equipment necessary for deactivation, and provide the method to assure that the same test results would be obtained if the air bag were not deactivated.
 - 2.4.3 Describe how the suppression system works and its components.
 - 2.4.4 State whether the air bag is suppressed when the seat is empty and whether the telltale on the dash is lit when the seat is empty. If the telltale is not lit when the seat is empty, describe the mechanism used to determine whether the air bag is suppressed or activated and describe the equipment and procedure necessary to verify the air bag is suppressed.
 - 2.4.5 Describe the telltale and its location.

- A2. The 2004 MY Chrysler Pacifica is not certified to the advanced air bag requirements of S14 of FMVSS 208. Therefore, this question does not apply.
- Q3. Non-advanced air bag vehicles certified unbelted in a 40 km/h or 48 km/h barrier crash test – State the sections (S5.1.2(a)(1), S5.1.2(a)(2)) of FMVSS 208 to which the vehicle model is certified. A copy of the certification test reports for belted and unbelted crash tests (frontal and angular).
- A3. The 2004 MY Chrysler Pacifica is not certified to the unbelted tests of S5.1.2 of FMVSS 208. Instead the vehicle is certified using the optional impact simulator test contained in S13.
- Q4. Non-advanced air bag vehicles certified unbelted in a sled test – State whether the vehicle model is certified to section S13 of FMVSS 208.
- 4.1 A copy of the certification sled test.
 - 4.2 A copy of the certification test reports for belted crash tests (frontal and angular).
 - 4.3 Describe how to disconnect the air bags from the vehicle sensors and connect them to the triggering mechanism used in the sled test.
 - 4.4 For air bags with dual stage or multi-stage inflators, describe the inflator stage or combination of inflator stages or time delay between successive inflator stages used in the sled test.
 - 4.5 For air bags with dual stage or multi-stage inflators, provide a copy of the tests and analyses that were used to determine the inflator stage or combination of inflator stages or time delay between successive inflator stages that would occur in a crash of similar severity.
- A4.1. The 2004 MY Chrysler Pacifica is certified to the unbelted sled test specified in S13 of FMVSS 208. A copy of the certification test is attached to this letter as Appendix A.
- A4.2. Certification test reports for the belted crash tests required by S5.1.1(a) of FMVSS 208 are attached to this letter in Appendix B.
- A4.3. The wiring harness is disconnected at the occupant restraint control (ORC) module located in the center console and an instrumentation wiring harness is connected to the squib circuits. Air bag wiring schematics for the 2004 MY Chrysler Pacifica are attached to this letter as Appendix C.
- A4.4. The front air bag inflators are a multi-stage design. For the sled test, the delay between inflation stages is 5 milliseconds for both the driver and passenger air bags. The driver side inflatable knee bolster is energized at the same time as the frontal air bag first stage inflators.
- A4.5. The 30 MPH delta-v crash pulse is used as input to the air bag control module algorithm to determine the appropriate air bag deployment stages. For the impact simulation test, the worst case air bag deployment delay that could ever occur for a 30 MPH delta-v crash (5 ms between stages) was selected. Deployment times for the 2004 MY Chrysler Pacifica as determined by the algorithm are attached to this letter as Appendix D.
- Q5. Other information
- 5.1 Describe the seat adjustment controls (manual and power) available for this model, including any adjustment controls on seats rearward of the front outboard

- designated seating positions, and the seat movements associated with each individual control.
- 5.2 Describe the headrest adjustments available for this model.
 - 5.3 State for each safety belt system in the subject vehicles whether or not it is equipped with a tension-relieving device. Provide a copy of the information furnished in accordance with S7.4.2 if the tension-relieving device is used.
 - 5.4 State for each crash test (frontal, angular, and offset) whether the moveable windows and vents were opened or closed.
 - 5.5 Submit dummy placement measurements, including diagrams or photographs that show exactly where each measurement was taken. For the subject vehicles certified to the advanced air bag requirements, provide measurements for both the 50th percentile male and the 5th percentile female. Enclosed is a diagram of some of OVSC's dummy measurements. Where possible, use each dimension shown in the diagram to provide the individual dummy placement measurements.
 - 5.6 State whether the subject vehicles have a footrest for the driver.
 - 5.7 Provide the seat positioning, steering column positioning, and fuel tank data on the enclosed form. If more than one front seating configuration, steering column or fuel tank configuration are available on this vehicle, provide separate information for each. For certification tests using the 5th percentile female, provide the seat fore-aft position, seat height, and seat back angle used in the certification test.
 - 5.8 Provide the seating reference point (SgRP) for the driver designated seating position and every other designated seating position required to comply with the lockable seat belt requirement in S7.1.1.5.
 - 5.9 If there are adjustable seat belt anchorages at front and/or rear designated seating positions, provide the manufacturer's nominal design position for a 50th percentile adult male occupant and, if certified to the advanced air bag requirements, the position for the 5th percentile female.
 - 5.10 For all tests that are performed to certify the subject vehicles to injury assessment performance requirements of FMVSS 208, provide a summary of the injury results. In addition, for crash tests provide the measured test speed.
 - 5.11 When vehicle components must be removed to obtain the proper test weight for crash tests, list the components you recommend for removal, and in the priority order you recommend for removal.
 - 5.12 If the subject vehicles use a pressure vessel to inflate the air bag, provide a copy of the test reports or engineering analysis to demonstrate that it meets all the requirements of S9.1.
 - 5.13 If the subject vehicles use an explosive device to inflate the air bag, provide a copy of the test report or engineering analysis to demonstrate that it meets all the requirements of S9.2.
-
- A5.1 The 2004 MY Chrysler Pacifica has front power seats as standard equipment. Controls for moving the seats are located on the door trim panels. The second row seats fore-aft adjustment is a "towel-bar" located under the seat cushion and the seat back is adjusted by a handle located on the outboard side of the seat cushion.
 - A5.2 The first two rows of seats are equipped with height adjustable headrests. The headrests do not adjust in the fore-aft direction.
 - A5.3 The 2004 MY Chrysler Pacifica does not have seatbelts that use a tension relieving device.

- A5.4 Certification crash tests for the 2004 MY Chrysler Pacifica were conducted with moveable windows in the open position.
- A5.5 The average dummy placement measurements for vehicle crash tests used to certify the 2004 MY Chrysler Pacifica are attached to this letter as Appendix E.
- A5.6 The 2004 MY Chrysler Pacifica is ~~not equipped with a footrest~~ for the driver.
- A5.7 The requested data for the 2004 MY Chrysler Pacifica is attached to this letter as Appendix F.
- A5.8 The requested data for the 2004 MY Chrysler Pacifica is attached to this letter as Appendix F.
- A5.9 The 2004 MY Chrysler Pacifica has four detents in the front seat belt adjustable turning loops. The recommended adjustable turning loop height for the 50th percentile adult male is the second detent from the full up position.
- A5.10 Summary tables of certification test reports that contain the requested information for the 2004 MY Chrysler Pacifica are attached to this letter as Appendix G.
- A5.11 Should it be necessary to remove vehicle components to obtain the proper test weight, please remove them in this order: spare tire, 3rd row seats, 2nd row seats, rear fascia skin (not bumper reinforcement), rear speakers, 3rd row seat belts, liftgate interior trim.
- A5.12 The 2004 MY Chrysler Pacifica uses a pressure vessel to inflate the passenger air bag. A test letter from the supplier that certified the inflator to the requirements of S9.1 of FMVSS 208 is attached to this letter as Appendix H.
- A5.13 The 2004 MY Chrysler Pacifica uses explosive devices to inflate both driver and passenger air bags. Test letters from the supplier are attached to this letter as Appendix H.

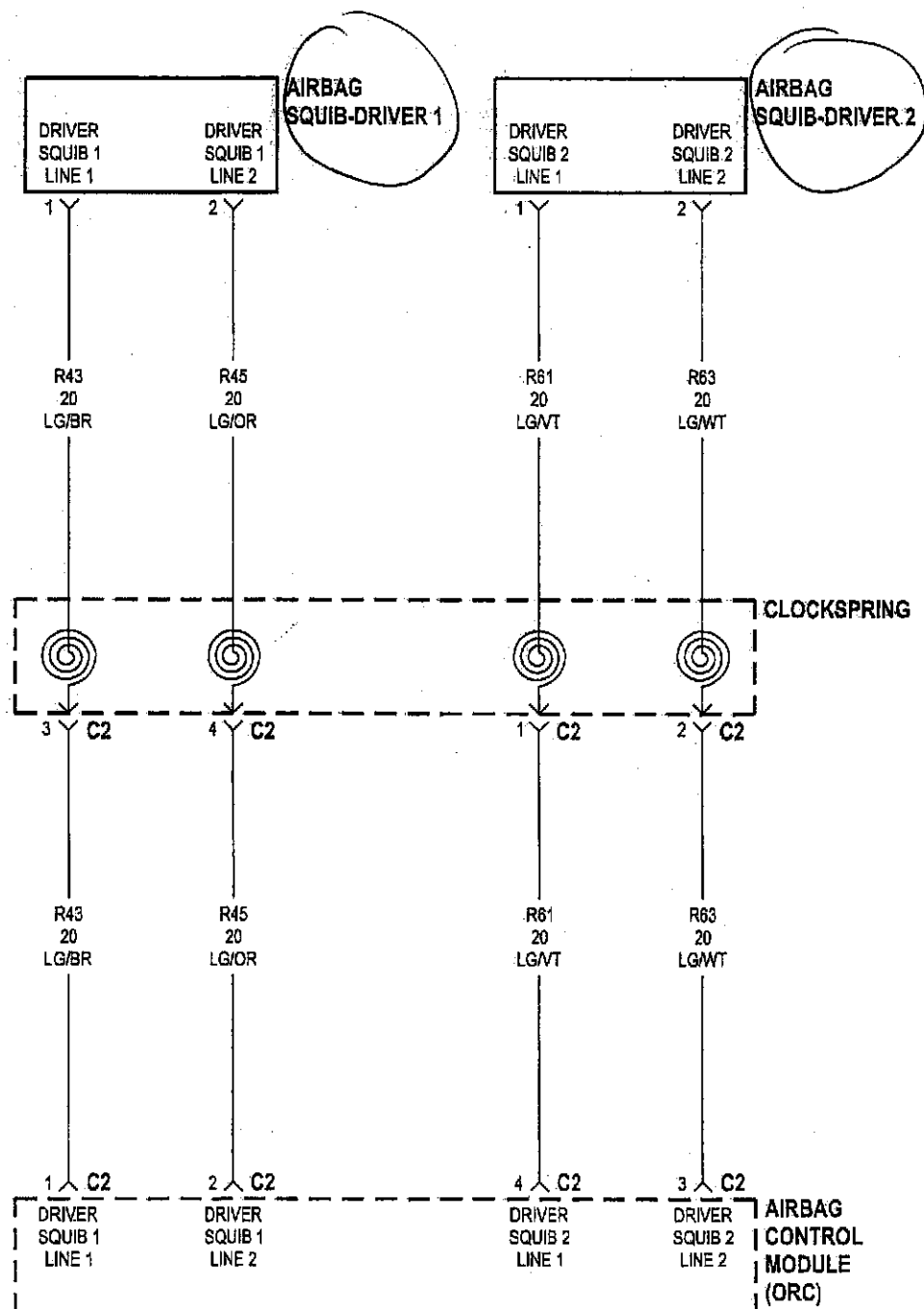
If you have any questions regarding the information provided, please direct them to Mr. Martin A. Heitkamp of my staff at (313) 493-2132.

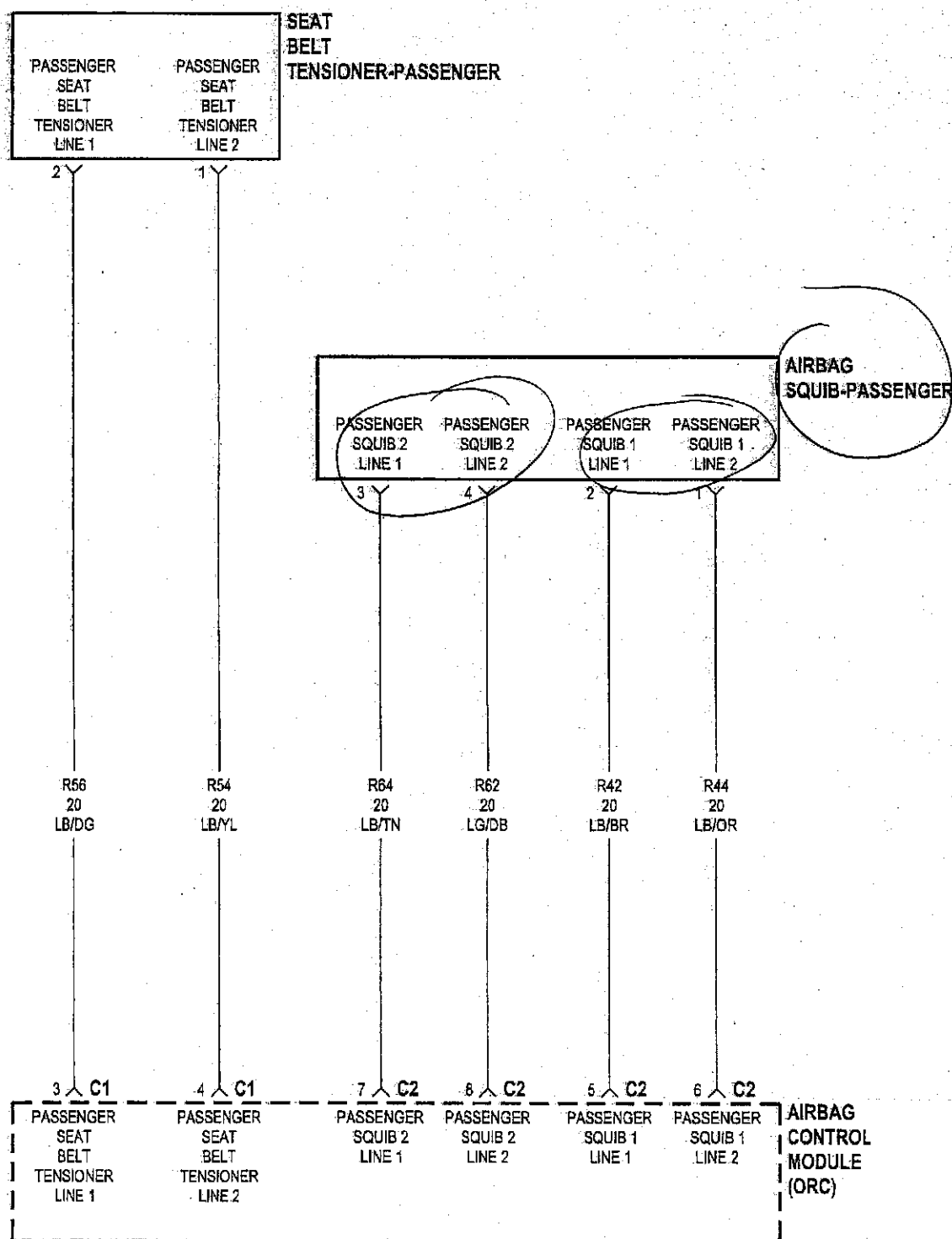
Sincerely,

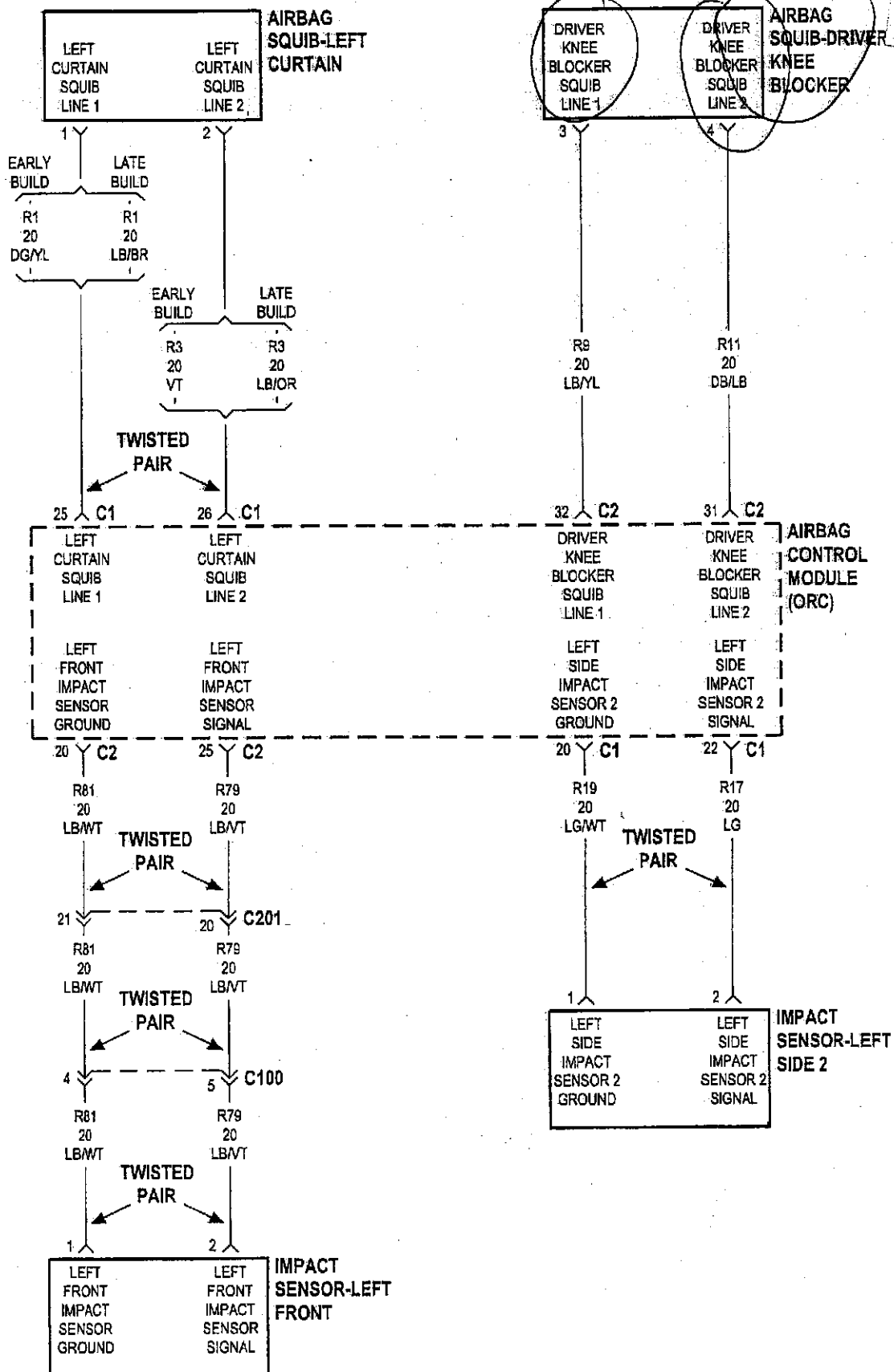


Stephan J. Speth
Attachments

Appendix C







WIRE COLOR CODE CHART

COLOR CODE	COLOR
BL	BLUE
BK	BLACK
BR	BROWN
DB	DARK BLUE
DG	DARK GREEN
GY	GRAY
LB	LIGHT BLUE
LG	LIGHT GREEN
OR	ORANGE
PK	PINK
RD	RED
TN	TAN
VT	VIOLET
WT	WHITE
YL	YELLOW
*	WITH TRACER

Appendix E

DESCRIPTIONS OF DUMMY MEASUREMENTS

When a level is to be used, it is to ensure that the line containing the two points described is either parallel or perpendicular to the ground. If a measurement to be made is less than 10 inches ignore the directions to use a level and approximate a level measurement.

1. The following measurements are to be recorded on the Driver Side within a vertical longitudinal plane.

CH - Chest to Steering Wheel Hub: Taken from a point on the dummy's chest 9 inches below the dummy's chin to the center of the steering wheel hub.

NR - Nose to Rim: Taken from the tip of the dummy's nose to the closest point on rear (closest to occupant) of the steering wheel rim.

NH - Nose to Hub: Taken from the tip of the dummy's nose to the center of the steering wheel hub.

2. The following measurements are to be recorded on the Passenger Side within a vertical transverse plane.

HW - Head to Windshield: Taken from the bridge of the dummy's nose (where the nose meets the forehead, between his eyes) level to windshield.

CD - Chest to I/P: Taken from a point on the dummy's chest 9 inches below the dummy's chin level to the closest point on the I/P (dashboard).

B - Ear Target to Windshield: Taken from the outboard ear target center level to the windshield.

3. The following measurements are to be recorded on Driver and Passenger Sides within a vertical transverse plane.

KSDL, KSDR - Left and Right Knee Skin to Dashboard: Taken from the leading edge of the knee skin to the closest point forward acquired by swinging the tape measure in continually larger arcs until it contacts the dashboard (knee bolster).

PBU, PBL - Pelvis to Belt: Taken by laying a flat plate across the dummy's thighs and measuring from the plate to the top and bottom edges of the torso belt at the dummy centerline.

Complete the chart on the next page describing the dummy positioning information. The measurements in the chart are to be the averages taken from the compliance tests listed in the Compliance Report.

DESCRIPTIONS OF DUMMY MEASUREMENTS

Diagram Reference	Description	Dimension (inches)
CH (Driver)	Chest to Hub	11.3
NR (Driver)	Nose to Rim	15.6
NH (Driver)	Nose to Hub	15.5
KSDL (Driver)	Left Knee to Bolster	3.7
KSDR (Driver)	Right Knee to Bolster	3.4
PBU (Driver)	Plate to Belt Upper	14.2
PBL (Driver)	Plate to Belt Lower	11.6
HW (Passenger)	Head to Windshield	23.9
CD (Passenger)	Chest to I/P	19.1
B (Passenger)	Ear Target to Windshield	27.4
KSDL (Passenger)	Left Knee to Dash	3.8
KSDR (Passenger)	Right Knee to Dash	4.3
PBU (Passenger)	Plate to Belt Upper	13.5
PBL (Passenger)	Plate to Belt Lower	10.2

Appendix F

TEST VEHICLE INFORMATION

Vehicle Model Year & Make: 2004 Chrysler
Vehicle Model & Body Style: Pacifica Sports Tourer

1. NOMINAL DESIGN RIDING POSITION - -

For adjustable driver and passenger seat backs, describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent if applicable. Indicate, if applicable, how the detents are numbered (Is the first detent A0" or A1"?). Indicate if the seat back angle is measured with the dummy in the seat.

Seat back angle for driver's seat = 20°.

Measurement Instructions:

Remove seatback cover to expose seat frame.

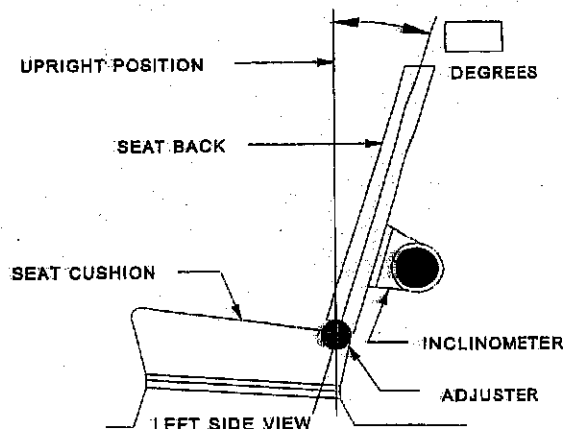
Level vehicle sill to horizontal. Set seat frame to

70 degrees. This results in a seatback angle of 20 degrees, with a corresponding OSCAR angle of 22 degrees.

Seat back angle for passenger's seat = 20°.

Measurement Instructions:

Same as driver seat.



2. SEAT FORE & AFT POSITIONS - -

Provide instructions for positioning the driver and front outboard passenger seat(s) in the center of fore and aft travel. For example, indicate how the detents are numbered (Is the first detent A0" or A1"?). Provide information to locate the detent in which the seat track is to be locked.

Positioning of the driver's seat:

Driver seat is power. Position to full-down. Move seat to full-forward & mark seat track. Move seat to full-rear & mark seat track. Mid-track will be the mid-point between the fore and aft extremes. Exact distance is 104 mm from either end.

Positioning of the passenger's seat (if applicable):

Same as driver.

Rear seat positioning is accomplished by setting the seat at mid-track (50 mm from either fore or aft extreme).

The Oscar torso angle should be 22 degrees,

To set seat back angle, remove load floor panel and set seat back frame to 18 degrees from vertical. When properly positioned, the load floor angle will be at 17 degrees from vertical.

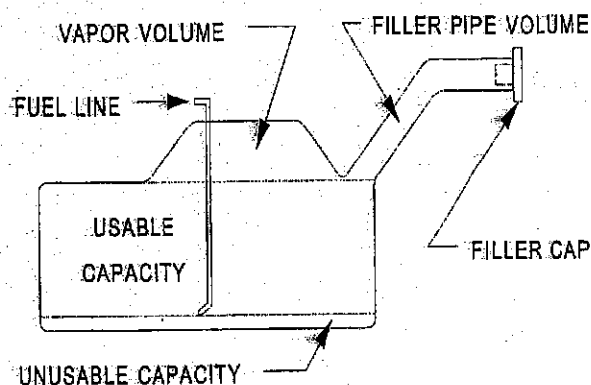
3. FUEL TANK CAPACITY DATA - -

TEST VEHICLE INFORMATION

- 3.1 A. "Usable Capacity" of standard equipment fuel tank = 23.0 gallons.
B. "Usable Capacity" of optional equipment fuel tank = no optional tank gallons.
C. "Usable Capacity" of vehicle(s) used for certification testing to requirements of FMVSS 301 = 21.7 gallons.

Operational Instructions:

Fill tank through fuel filler door on left rear quarter panel.



VEHICLE FUEL TANK ASSEMBLY

TEST VEHICLE INFORMATION

3.2 Amount of Stoddard solvent added to vehicle(s) used for certification test(s) = 21.7 gallons

3.3 Is vehicle equipped with electric fuel pump? ☒ YES ☐ NO

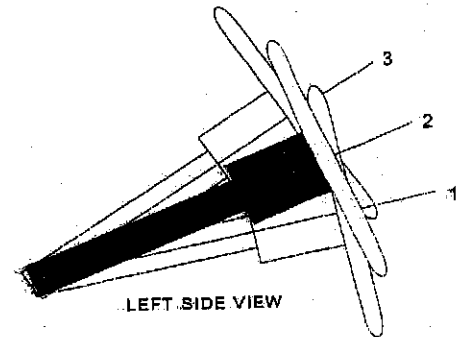
If YES, does pump normally operate when vehicle's electrical system is activated?
☒ YES ☐ NO

4. ADJUSTABLE UPPER ANCHORAGE POSITION:
Adjustable anchorage has four positions. Place Anchorage in Top Position, #1. Move anchorage down one index click to Test Position #2.

5. STEERING COLUMN ADJUSTMENTS

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions.

If the tested vehicle has any of these adjustments, does your company use any specific procedures to determine the geometric center?



STEERING COLUMN ASSEMBLY

Operational Instructions:

A tilting, non-telescoping column is standard equipment on the Pacifica. The tilt head has a total range of motion of 20 degrees. From the highest locked position, lower tilt head 9 degrees. Ensure tilt head is latched. This represents a typical steering wheel angle of 66 to 67 degrees, as measured in-vehicle with the driver sill at level.

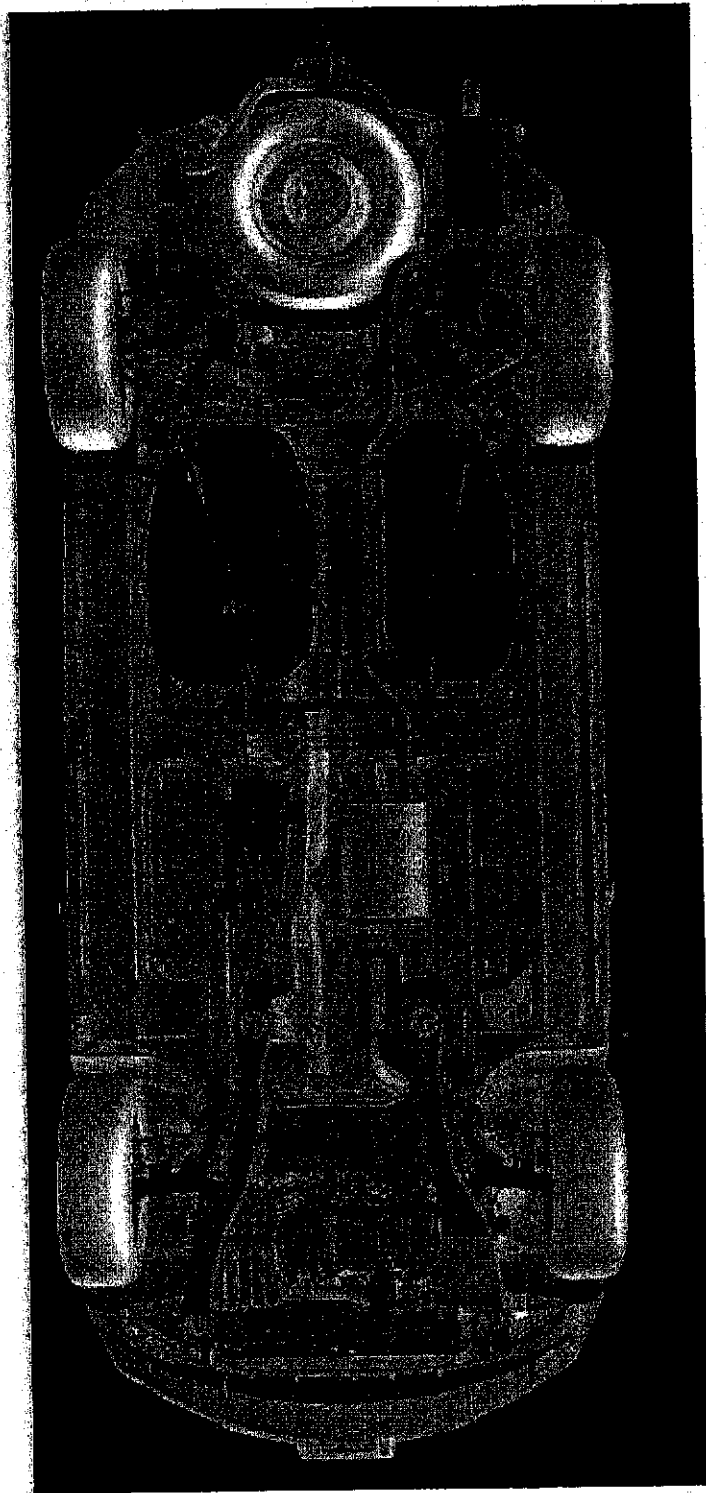
6. SEATING REFERENCE POINT (SRP)

Provide drawing which shows the driver's SRP location.

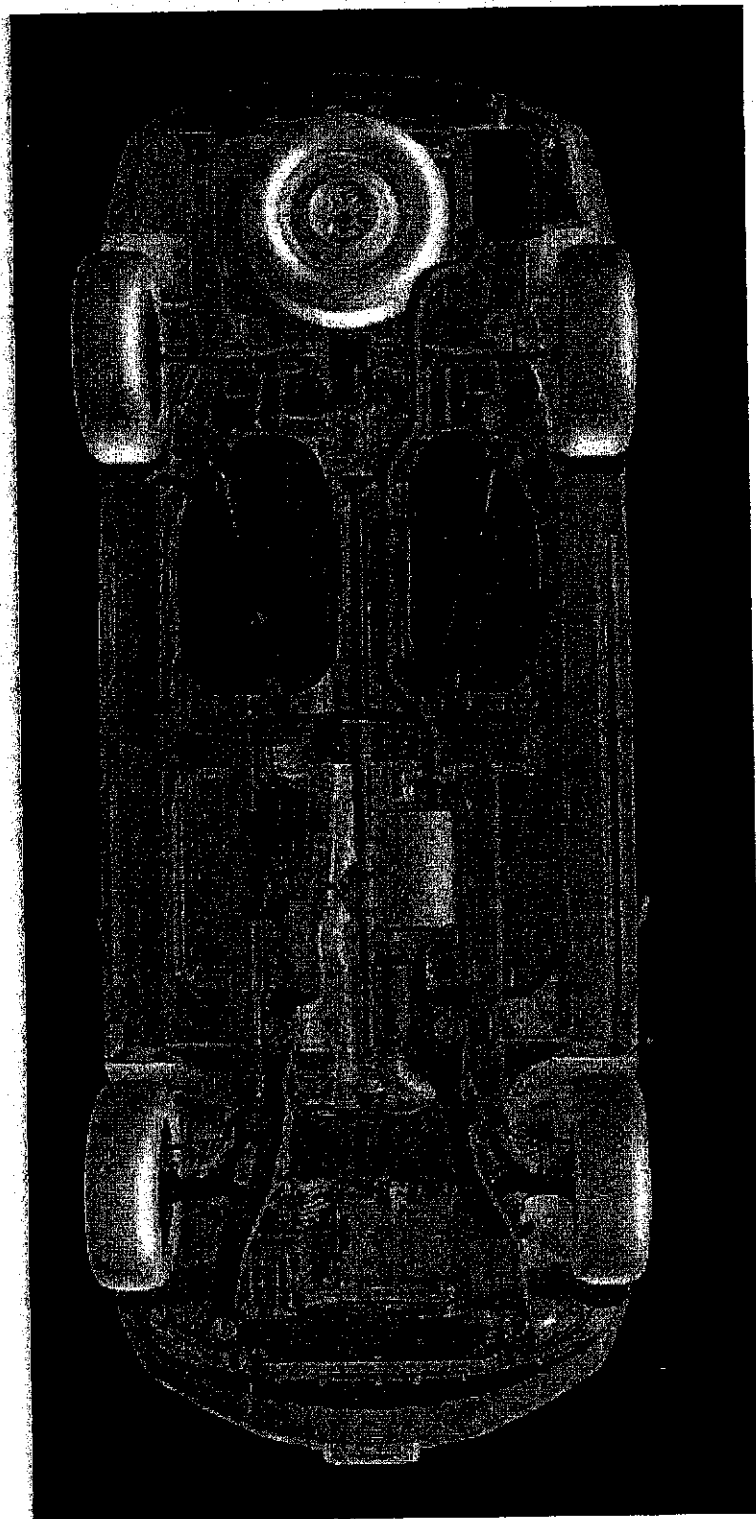
7. FUEL TANK LOCATION

Provide drawing which shows the undercarriage view of the vehicle.

Pacifica front wheel drive underbody



Pacifica all wheel drive underbody



SEAT REFERENCE POINT (SRP) AND TORSO ANGLE DATA

(All dimensions in mm¹)

Model Year: 2004 Make: Chrysler Model: Pacifica Body Style: _____
 Seat Style: Front Row: Low-Bk Second Row: Bucket Third Row: Bucket

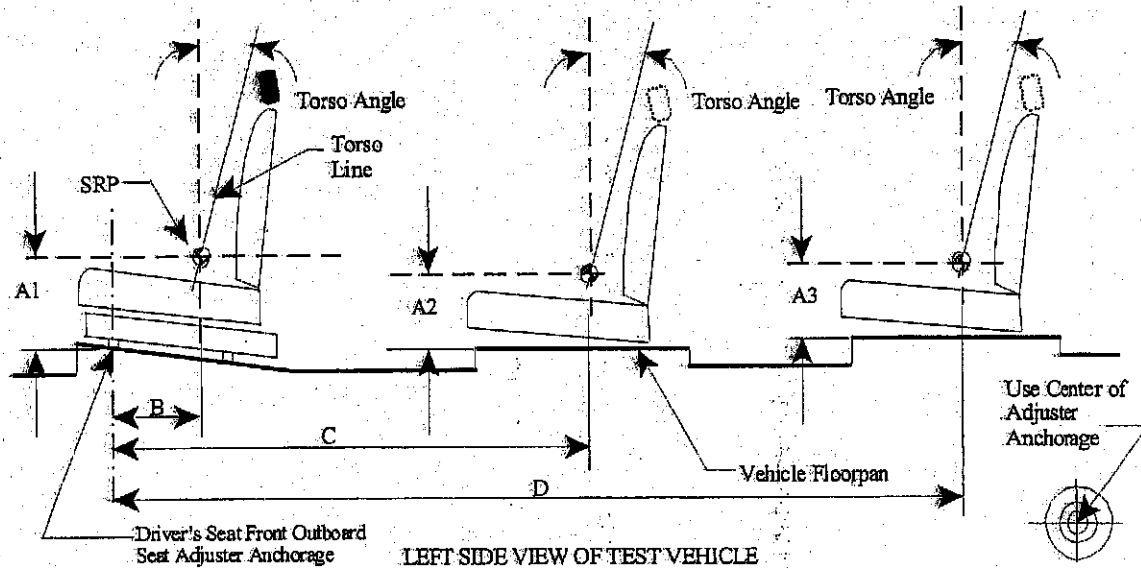


Table 1. Seating Positions¹ and Torso Angles

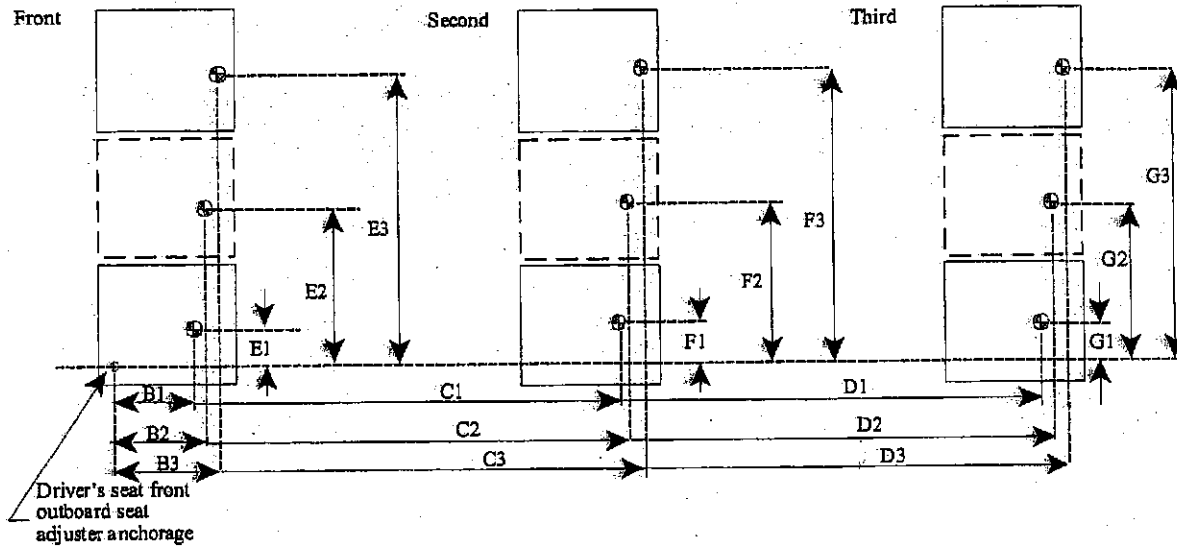
		Left (Driver Side)	Center (if any)	Right
A1		353		353
A2		292		292
A3		171		171
B		302		302
C		1186		1186
D		1981		1981
Torso Angle (degree)	Front Row	22		22
	Second Row	22		22
	Third Row	22		22

Note: 1. All dimensions are in mm. If not, provide the unit used.

SEATING REFERENCE POINT

(All dimensions in mm)

Model Year: 2004 Make: Chrysler Model: Pacifica Body Style: _____
 Seat Style: Front Row: Low-Bk Second Row: Bucket Third Row: Bucket



SEATING REFERENCE POINT

(All dimensions in mm)

Table 2. Seating Reference Point

Seating Reference Point (SRP)		Distance from Driver's front outboard seat adjuster anchorage ¹
Front Row	B1	302
	E1	191
	B2	N/A
	E2	N/A
	B3	302
	E3	991
Second Row	C1	1186
	F1	191
	C2	N/A
	F2	N/A
	C3	1186
	F3	991
Third Row	D1	1981
	G1	343
	D2	N/A
	G2	N/A
	D3	1981
	G3	836

Note: 1. Use the center of anchorage.

Appendix G

OCCUPANT CRASH PROTECTION **2004 CS BODY**

MVSS 208-S13
IMPACT SIMULATOR: DRIVER & PASSENGER

TEST NUMBER	TEST DATE	HIC (36ms)	Chest		Femur Load (lbs)		Neck Moment		Neck Shear Fx		Neck Axial Fz	
			G's	Deflect. (cm)	Lt. Femur	Rt. Femur	Flexion	Extension	Fore	Aft	Compression	Tension
MVSS 208 Limits		1000	60	7.6 cm	2250	2250	190 Nm	57 Nm	3100 N	-3100 N	4000 N	-3300 N
					2250 lbf = 10000 N							

DRIVER

IS 22848	10/24/2002	112.3	31.9	2.33	3578.2 N	2567.7 N	39.8	12.3	745.2	-140.8	357.0	-961.3
Leather Bucket Seat with Power Adjusters, Tilt Steering Column												

PASSENGER

IS 22848	10/24/2002	132.3	43.1	1.02	5395.2 N	5514.9 N	81.7	19.0	1758.4	-298.6	1488.2	-365.9
Leather Bucket Seat with Power Adjusters												

Notes:

- IMPACT SIMULATOR TIME INTERVAL BETWEEN 0 - 210 ms.
- TIME INTERVAL CHOSEN TO INCLUDE ALL SIGNIFICANT DATA.
- HYBRID III DUMMIES RESTRAINED BY "AIRBAG ONLY" ON IMPACT SIMULATOR.
- FOR IS22848 THE AIRBAG DEPLOYMENT TIMES ARE PRIMARY @ 19.9 ms AND SECONDARY @ 24.9 ms AFTER CARRIAGE ACCELERATION REACHES 0.5 G's.
- FOR INFLATABLE KNEE BLOCKER THE TIME TO DEPLOY IS 19.9 ms (PRIMARY ONLY).

OCCUPANT CRASH PROTECTION

2004 CS BODY

MVSS 208 / CMVSR 208

BARRIER CRASH - DRIVER

TEST NUMBER	DATE VEHICLE	WT. lbs Spd. Mph	COMMENTS:	ASSESSMENT CRITERIA				
				HIC	Chest		Femur Load	
					G's	Deflect.	Lt. Femur	Rt. Femur
			FMVSS 208 Limits (FF & Angular)	1000 @ 36ms	60	3.0 in	2250 lbs	2250 lbs
			CMVSR 208 Limits (FF Only)	700 @ 15ms	NA	50 mm	10000 N	10000 N

FLAT FRONTAL

VC 10384	1/8/2003	5042	3.5L AWD	FMVSS	224 @ 36 ms	34.8 G's	1.24 in	555 lbs	293 lbs
	CSC 6236	30.3		CMVSR	125 @ 15 ms	NA	31.5 mm	2470.5 N	1303.6 N
VC 10461	2/11/2003	4894	3.5L FWD	FMVSS	232 @ 36ms	32.1 G's	1.32 in	-531 lbs	477 lbs
	CSY6432	30.6		CMVSR	137 @ 15ms	NA	33.6 mm	2360.8 N	2123 N

LEFT ANGULAR

VC 10269	11/6/2002	5077	3.5L AWD	FMVSS	306 @ 36ms	41.2 G's	1.54 in	710 lbs	384 lbs
	CSC 6140	30.3			NA	NA	39.1 mm	3158.4 N	1708.4 N
VC 10468	2/15/2003	4899	3.5L FWD	FMVSS	292 @ 36ms	36.7 G's	1.41 in	814 lbs	498 lbs
	CSY6399	30.5			NA	NA	35.7 mm	3621 N	2215.7 N

RIGHT ANGULAR

VC 10201	11/1/2002	5078	3.5L AWD	FMVSS	213 @ 36ms	33.4 G's	1.30 in	688 lbs	318 lbs
	CSC 6131	30.1			NA	NA	33.1 mm	3061.5 N	1414.4 N
VC 10469	2/6/2003	4908	3.5L FWD	FMVSS	187 @ 36ms	31.2 G's	1.21 in	586 lbs	250 lbs
	CSY6397	30.3			NA	NA	30.7 mm	2604.5 N	1112.2 N

NOTES:

- VC TIME INTERVAL BETWEEN 0 - 300MS, PER STANDARD CHRYSLER PRACTICE
- TIME INTERVALS WERE CHOSEN TO INCLUDE ALL SIGNIFICANT DATA
- HYBRID III DUMMIES RESTRAINED BY "AIRBAG & SEATBELT" ON BARRIER CRASH
- CMVSR 208 APPLIES ONLY TO FLAT FRONTAL TEST MODE
- NA = Not Applicable

OCCUPANT CRASH PROTECTION

2004 CS BODY
MVSS 208 / CMVSR 208
BARRIER CRASH - PASSENGER

TEST NUMBER	DATE	VEHICLE	WT. Lbs Spd. Mph	COMMENTS:	ASSESSMENT CRITERIA				
					HIC	Chest		Femur Load	
						G's	Deflect.	Lt. Femur	Rt. Femur

FLAT FRONTAL

VC 10384	1/8/2003	5042	3.5L AWD	FMVSS	175 @ 36 ms	33.1 G's	1.34 in	792 lbs	229 lbs
	CSC 6236	30.3		CMVSR	95 @ 15 ms	NA	34.1 mm	3524.9 N	1020.0 N
VC 10461	2/11/2003	4894	3.5L FWD	FMVSS	201 @ 36ms	35.4 G's	1.57 in	667 lbs	247 lbs
	CSY6432	30.6		CMVSR	126 @ 15ms	NA	40.1 mm	2968.4 N	1100.6 N

LEFT ANGULAR

VC 10269	11/6/2002	5077	3.5L AWD	FMVSS	250 @ 36	34 G's	1.18 in	920 lbs	156 lbs
	CSC 6140	30.3			NA	NA	30.1 mm	4093.1 N	695.1 N
VC 10468	2/15/2003	4899	3.5L FWD	FMVSS	208 @ 36ms	31.9 G's	1.28 in	928 lbs	287 lbs
	CSY6399	30.5			NA	NA	32.5 mm	4126.5 N	1276.9 N

RIGHT ANGULAR

VC 10201	11/1/2002	5078	3.5L AWD	FMVSS	210 @ 36ms	39.7 G's	0.93 in	472 lbs	622 lbs
	CSC 6131	30.1			NA	NA	23.7 mm	2098.5 N	2767.5 N
VC 10469	2/6/2003	4908	3.5L FWD	FMVSS	230 @ 36ms	37.7 G's	1.47 in	459 lbs	441 lbs
	CSY6397	30.3			NA	NA	37.2 mm	2042.6 N	1962.5 N

NOTES:

- VC TIME INTERVAL BETWEEN 0 - 300MS, PER STANDARD CHRYSLER PRACTICE
- TIME INTERVALS WERE CHOSEN TO INCLUDE ALL SIGNIFICANT DATA
- HYBRID III DUMMIES RESTRAINED BY "AIRBAG & SEATBELT" ON BARRIER CRASH
- CMVSR 208 APPLIES ONLY TO FLAT FRONTAL TEST MODE
- NA = Not Applicable

When the lock switch is pressed the window controls on the passenger doors will not illuminate and the passenger windows will be disabled.

Auto Down Feature

All the power window switches have an auto down feature. Press the window switch to the second detent, release, and the window will go down automatically.

To open the window part way, press the window switch to the first detent and release it when you want the window to stop.

The power window switches remain active for up to 45 seconds after the ignition switch has been turned off. Opening either front door will cancel this feature.

Wind Buffeting

Wind buffeting can be described as the perception of pressure on the ears or a helicopter type sound in the ears. Your vehicle may exhibit wind buffeting with the

windows down, or the sunroof (if equipped) in certain open or partially open positions. This is a normal occurrence and can be minimized. If the buffeting occurs with the rear windows open, open the front and rear windows together to minimize the buffeting. If the buffeting occurs with the sunroof open, adjust the sunroof opening to minimize the buffeting.

OCCUPANT RESTRAINTS

Some of the most important safety features in your vehicle are the restraint systems. These include the front and rear seat belts for the driver and all passengers, front airbags for both the driver and front passenger, driver inflatable knee blocker and if equipped, left and right side curtain airbags for the driver and passengers seated next to a window. If you will be carrying children too small for adult-size seat belts, your seat belts or the LATCH feature (refer to the Child Restraint section in this manual), can be used to hold infant and child restraint systems.

Please pay close attention to the information in this section. It tells you how to use your restraint system properly to keep you and your passengers as safe as possible.

WARNING!

In a collision, you and your passengers can suffer much greater injuries if you are not properly buckled up. You can strike the interior of your vehicle or other passengers, or you can be thrown out of the vehicle. Always be sure you and others in your vehicle are buckled up properly.

Buckle up even though you are an excellent driver, even on short trips. Someone on the road may be a poor driver and cause a collision that includes you. This can happen far away from home or on your own street.

Research has shown that seat belts save lives, and they can reduce the seriousness of injuries in a collision. Some of the worst injuries happen when people are thrown from the vehicle. Seat belts reduce the possibility of ejection and the risk of injury caused by striking the inside of the vehicle. **Everyone** in a motor vehicle should be belted at all times.

Lap/Shoulder Belts

All the seats in your vehicle are equipped with Lap/Shoulder Belts.

The belt webbing retractor is designed to lock during very sudden stops or collisions. This feature allows the shoulder part of the belt to move freely with you under normal conditions. But in a collision, the belt will lock and reduce the risk of your striking the inside of the vehicle or being thrown out.

WARNING!

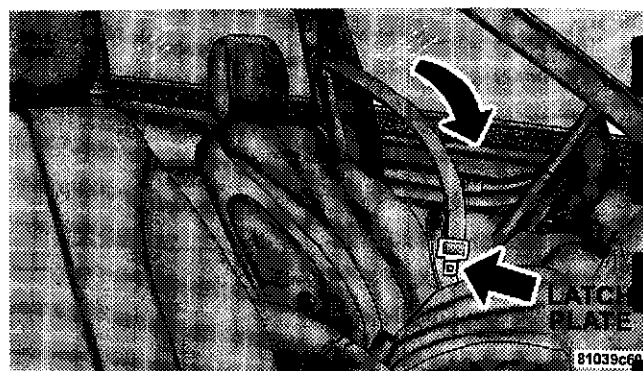
- It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed.
- Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts.
- Be sure everyone in your vehicle is in a seat and using a seat belt properly.

WARNING!

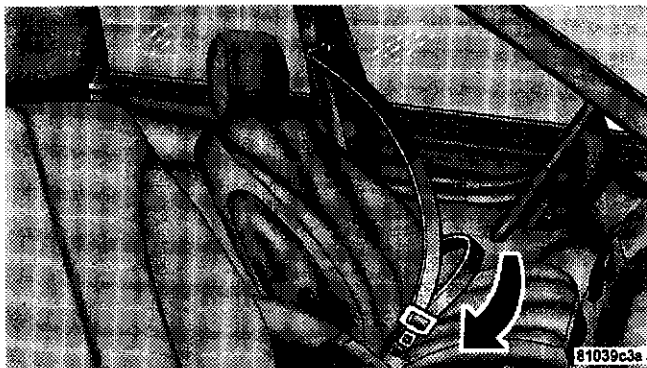
- Wearing a seat belt incorrectly is dangerous. Seat belts are designed to go around the large bones of your body. These are the strongest parts of your body and can take the forces of a collision the best.
- Wearing your belt in the wrong place could make your injuries in a collision much worse. You might suffer internal injuries, or you could even slide out of part of the belt. Follow these instructions to wear your seat belt safely and to keep your passengers safe, too.
- Two people should never be belted into a single seat belt. People belted together can crash into one another in a collision, hurting one another badly. Never use a lap/shoulder belt or lap belt for more than one person, no matter what their size.

Lap/Shoulder Belt Operating Instructions

1. Enter the vehicle and close the door. Sit back and adjust the seat.
2. The seat belt latch plate is near the seatback of the front seats and next to your arm in the rear seats. Grasp the latch plate and pull out the belt. Slide the latch plate up the webbing as far as necessary to allow the belt to go around your lap.



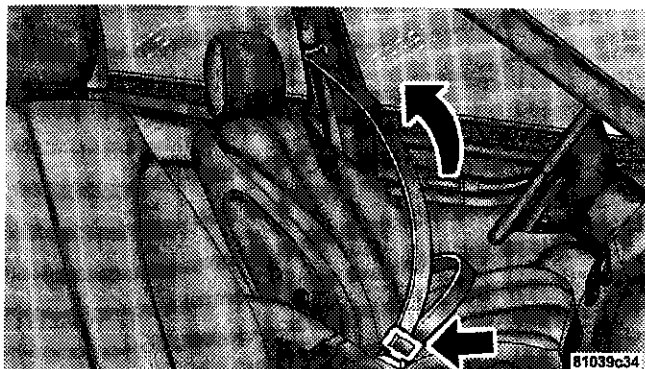
3. When the belt is long enough to fit, insert the latch plate into the buckle until you hear a "click".

**WARNING!**

- A belt that is buckled into the wrong buckle will not protect you properly. The lap portion could ride too high on your body, possibly causing internal injuries. Always buckle your belt into the buckle nearest you.
- A belt that is too loose will not protect you as well. In a sudden stop you could move too far forward, increasing the possibility of injury. Wear your seat belt snugly.
- A belt that is worn under your arm is very dangerous. Your body could strike the inside surfaces of the vehicle in a collision, increasing head and neck injury. A belt worn under the arm can cause internal injuries. Ribs aren't as strong as shoulder bones. Wear the belt over your shoulder so that your strongest bones will take the force in a collision.
- A shoulder belt placed behind you will not protect you from injury during a collision. You are more likely to hit your head in a collision if you do not wear your shoulder belt. The lap and shoulder belt are meant to be used together.

36 THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

4. Position the lap belt across your thighs, below your abdomen. To remove slack in the lap belt portion, pull up on the shoulder belt. To loosen the lap belt if it is too tight, tilt the latch plate and pull on the lap belt. A snug belt reduces the risk of sliding under the belt in a collision.



WARNING!

- A lap belt worn too high can increase the risk of internal injury in a collision. The belt forces won't be at the strong hip and pelvic bones, but across your abdomen. Always wear the lap belt as low as possible and keep it snug.
- A twisted belt can't do its job as well. In a collision it could even cut into you. Be sure the belt is straight. If you can't straighten a belt in your vehicle, take it to your dealer and have it fixed.

5. Position the shoulder belt on your chest so that it is comfortable and not resting on your neck. The retractor will withdraw any slack in the belt.

6. To release the belt, push the red button on the buckle. The belt will automatically retract to its stowed position. If necessary, slide the latch plate down the webbing to allow the belt to retract fully.

WARNING!

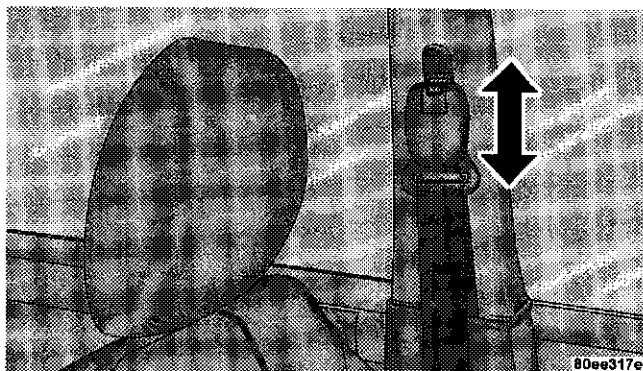
A frayed or torn belt could rip apart in a collision and leave you with no protection. Inspect the belt system periodically, checking for cuts, frays, or loose parts. Damaged parts must be replaced immediately. Do not disassemble or modify the system. Seat belt assemblies must be replaced after a collision if they have been damaged (bent retractor, torn webbing, etc.).

THINGS TO KNOW BEFORE STARTING YOUR VEHICLE 37

Adjustable Upper Shoulder Belt Anchorage

In the front seats, the shoulder belt anchorage can be adjusted upward or downward to help position the belt away from your neck. Press the button to release the anchorage, and then move it up or down to the position that serves you best.

2

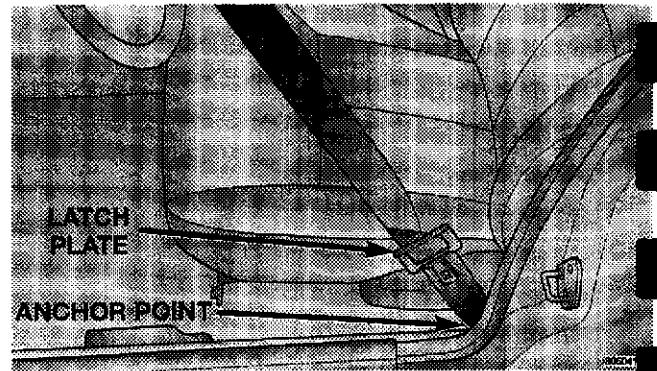


As a guide, if you are shorter than average, you will prefer a lower position, and if you are taller than average, you'll prefer a higher position. When you release the anchorage, try to move it up or down to make sure that it is locked in position.

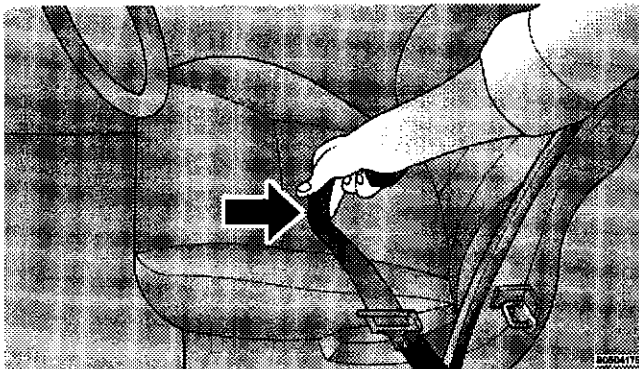
Lap/Shoulder Belt Untwisting Procedure

Use the following procedure to untwist a twisted lap/shoulder belt.

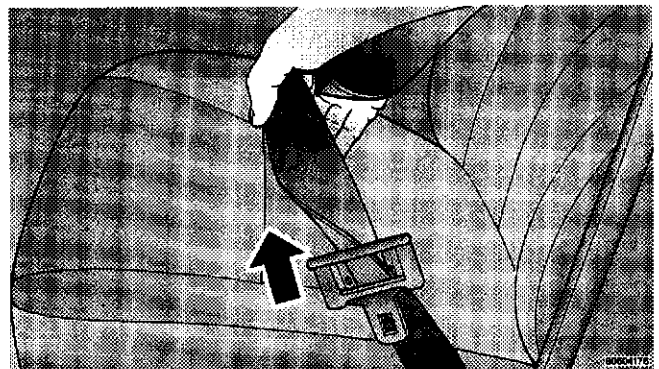
1. Position the latch plate as close as possible to the anchor point.



2. At about 6 to 12 inches (15 to 30 cm) above the latch plate, grasp and twist the belt webbing 180° to create a fold that begins immediately above the latch plate.



3. Slide the latch plate upward over the folded webbing. The folded webbing must enter the slot at the top of the latch plate.



4. Continue to slide the latch plate up until it clears the folded webbing.

Seat Belt Pretensioners

The seat belts for both front seating positions are equipped with pretensioning devices that are designed to remove slack from the seat belt in the event of a collision. These devices improve the performance of the seat belt by assuring that the belt is tight about the occupant early in a collision. Pretensioners are designed to work for all size occupants.

NOTE: These devices are not a substitute for proper seat belt placement by the occupant. The seat belt still must be worn snugly and positioned properly.

The pretensioners are triggered by the front airbag control module (see Airbag Section). Like the front airbags, the pretensioners are single use items. After a collision that is severe enough to deploy the airbags and pretensioners, both must be replaced.

Enhanced Driver Seat Belt Reminder System (BeltAlert™)

If the driver's seat belt has not been buckled within 60 seconds of starting the vehicle and if the vehicle speed is greater than 5 mph (8 km/h), the Enhanced Warning System (BeltAlert™) will alert the driver to buckle their seat belt. The driver should also instruct all other occupants to buckle their seat belts. Once the warning is triggered, the Enhanced Warning System (BeltAlert™) will continue to chime and flash the Seat Belt Warning Light for 96 seconds or until the driver's seat belt is buckled.

The Enhanced Warning System (BeltAlert™) will be reactivated if the driver's seat belt is unbuckled for more than 10 seconds and the vehicle speed is greater than 5 mph (8 km/h).

The Enhanced Warning System (BeltAlert™) can be enabled or disabled by your authorized dealer or by following these steps:

NOTE: The following steps must occur within the first 60 seconds of the ignition switch being turned to the ON or START position. DaimlerChrysler does not recommend deactivating the Enhanced Warning System (BeltAlert).

1. Turn the ignition switch to the OFF position and buckle the driver's seat belt.
2. Start the engine and wait for the Seat Belt Warning Light to turn off.
3. Within 60 seconds of starting the vehicle, unbuckle and then re-buckle the driver's seat belt at least three times within 10 seconds, ending with the seat belt buckled.

4. Turn off the engine. A single chime will sound to signify that you have successfully completed the programming.

The Enhanced Warning System (BeltAlert™) can be reactivated by repeating this procedure.

NOTE: Although the Enhanced Warning System (BeltAlert™) has been deactivated, the Seat Belt Warning Light will continue to illuminate while the driver's seat belt remains unbuckled.

Seat Belts and Pregnant Women

We recommend that pregnant women use the seat belts throughout their pregnancies. Keeping the mother safe is the best way to keep the baby safe.

Pregnant women should wear the lap part of the belt across the thighs and as snug across the hips as possible.

Keep the belt low so that it does not come across the abdomen. That way the strong bones of the hips will take the force if there is a collision.

Seat Belt Extender

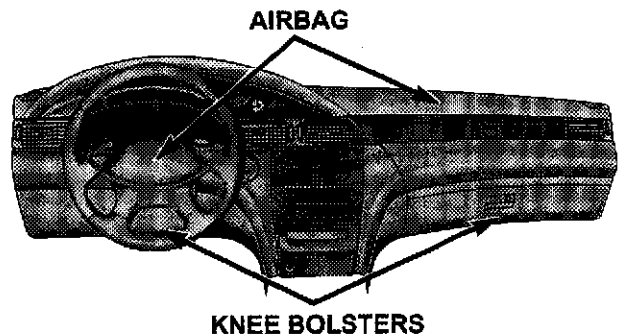
If a seat belt is too short, even when fully extended and when the adjustable upper shoulder belt anchorage (if equipped) is in its lowest position, your dealer can provide you with a seat belt extender. This extender should be used only if the existing belt is not long enough. When it is not required, remove the extender and stow it.

WARNING

Using a seat belt extender when not needed can increase the risk of injury in a collision. Only use when the lap belt is not long enough when it is worn low and snug, and in the recommended seating positions. Remove and store the extender when not needed.

Driver and Front Passenger Supplemental Restraint System - Airbag

This vehicle has airbags for both the driver and front passenger as a supplement to the seat belt restraint systems. The driver's front airbag is mounted in the center of the steering wheel. The passenger's front airbag is mounted in the instrument panel, above the glove compartment. The words SRS AIRBAG are embossed on the airbag covers.



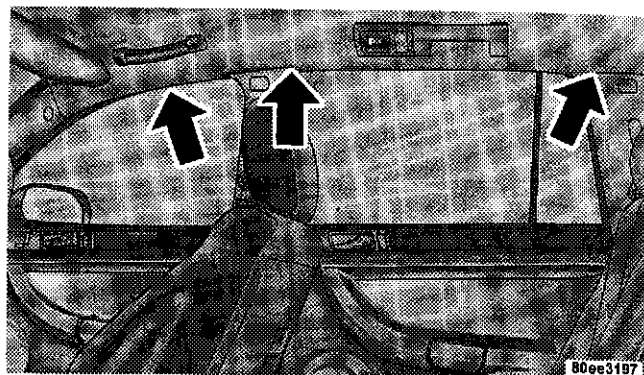
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NOTE: The front airbags are certified to the Federal regulations that allow less forceful deployment in low speed collisions.

The front airbags have a multi stage inflator design. This allows the airbag to have different rates of inflation that are based on collision severity.

This vehicle is also equipped with a driver inflatable knee blocker located on the instrument panel below the steering column.

This vehicle may also be equipped with left and right side curtain airbags to protect the driver and passengers sitting next to a window. If the vehicle is equipped with side curtain airbags, they are located above the side windows. Their covers are also labeled SRS AIRBAG.



NOTE: Airbag covers may not be obvious in the interior trim; but they will open to allow airbag deployment.

WARNING

- Do not put anything on or around the airbag covers or attempt to manually open them. You may damage the airbags and you could be injured because the airbags are not there to protect you. These protective covers for the airbag cushions are designed to open only when the airbags are inflating.
- If your vehicle is equipped with left and right side curtain airbags, do not stack luggage or other cargo up high enough to block the location of the side curtain airbag. The area where the side curtain airbag is located should remain free from any obstructions.
- If your vehicle is equipped with left and right side curtain airbags, do not have any accessory items installed which will alter the roof, including adding a sunroof to your vehicle. Do not add roof racks that require permanent attachments (bolts or screws) for installation on the vehicle roof. Do not drill into the roof of the vehicle for any reason.

Airbags inflate in moderate to high speed impacts. Along with seat belts, and pretensioners, front airbags work with the instrument panel knee blockers to provide improved protection for the driver and front passenger. Left and right side curtain airbags also work with seat belts to improve occupant protection.

The seat belts are designed to protect you in many types of collisions. The front airbags deploy only in moderate to severe frontal collisions. If your vehicle is equipped, the side curtain airbag on the crash side of the vehicle is triggered in moderate to severe side collisions. In certain types of collisions where the airbags deploy, you need the seat belts to keep you in the right position for the airbags to protect you properly.

Here are some simple steps you can take to minimize the risk of harm from a deploying airbag.

1. Children 12 years old and under should always ride buckled up in a rear seat.

Infants in rear facing child restraints should **NEVER** ride in the front seat of a vehicle with a passenger front airbag. An airbag deployment can cause severe injury or death to infants in that position.

Children that are not big enough to properly wear the vehicle seat belt (refer to section on Child Restraint) should be secured in the rear seat, in a child restraint or belt-positioning booster seat appropriate for the size and age of the child. Older children who do not use a child restraint or belt-positioning booster seat should ride properly buckled up in the rear seat. Never allow children to slide the shoulder belt behind them or under their arm.

If a child from 1 to 12 years old must ride in the front passenger seat because the vehicle is crowded, move the seat as far back as possible, and use the proper child restraint. Refer to the section on Child Restraint.

You should read the instructions provided with your child restraint to make sure that you are using it properly.

2. All occupants should wear their lap and shoulder belts properly.

3. The driver and front passenger seats should be moved back as far as practical to allow the front airbags room to inflate.

4. If your vehicle has left and right side curtain airbags, do not lean against the door, airbags will inflate forcefully into the space between you and the door.

WARNING

- Relying on the airbags alone could lead to more severe injuries in a collision. The airbags work with your seat belt to restrain you properly. In some collisions the airbags won't deploy at all. Always wear your seat belts even though you have airbags.
- Being too close to the steering wheel or instrument panel during front airbag deployment could cause serious injury. Airbags need room to inflate. Sit back, comfortably extending your arms to reach the steering wheel or instrument panel.
- If the vehicle has left and right side curtain airbags, they also need room to inflate. Do not lean against the door or window. Sit upright in the center of the seat.

"The Front Airbag System" consists of the following:

- Airbag Control Module (with integrated impact sensor)
- AIRBAG Readiness Light
- Driver Airbag
- Front Passenger Airbag
- Seat Belt Pretensioners
- Steering Wheel and Column
- Instrument Panel
- Seat Belt Readiness Light
- Interconnecting Wiring
- Passenger Knee Impact Blocker
- Driver Inflatable Knee Blocker

How The Airbag Systems Work

- The airbag control module determines if an impact is severe enough to require the airbags to inflate. Based on the level of collision severity, the control module determines the proper rate of inflation. The front airbag inflators are designed to provide different rates of airbag inflation. The airbag control module will not detect roll over collisions.

The airbag control module also monitors the readiness of the electronic parts of the system whenever the ignition switch is in the START or ON positions. These include all of the items listed under "The Front Airbag System", except the passenger knee blocker, instrument panel and the steering wheel and column. If the key is in the OFF position, in the ACC position, or not in the ignition switch, the front airbags are not on and will not inflate.



The airbag control module sends a message to the instrument cluster to turn on the AIRBAG light in the instrument panel for 6 to 8 seconds when the ignition switch is first turned ON, then turns the light off. If the airbag control module detects a malfunction in any part of the system, the airbag light will turn on either momentarily or continuously.

WARNING!

Ignoring the AIRBAG light in your instrument panel could mean you won't have the airbags to protect you in a collision. If the light does not come on, stays on after you start the vehicle, or if it comes on as you drive, have the airbag system checked right away.

- When the airbag control module detects a collision requiring the **Front Airbags**, it signals the inflator units. A large quantity of nontoxic gas is generated to inflate the front airbags. Different front airbag inflation rates are possible, these rates are determined by the airbag control module based on collision severity. The front airbag covers separate and fold out of the way as the front airbags inflate to their full size. The front airbags fully inflate in about 50 milliseconds. This is only about half of the time it takes you to blink your eyes. The front airbags then quickly deflate while helping to restrain the driver and front passenger. The driver's and passenger's front airbag gas is vented through the airbag material and small vent openings towards the instrument panel. In this way the front airbags do not interfere with your control of the vehicle.
- The **Supplemental Side Curtain Airbags** are designed to activate only in certain side collisions. When the

airbag control module detects a collision requiring the side curtain airbags to inflate, it signals the inflators on the crash side of the vehicle. A quantity of nontoxic gas is generated to inflate the side curtain airbag. The inflating side curtain airbag pushes the outside edge of the headliner out of the way and inflates (in about the same time it takes to blink your eyes). A properly belted and seated occupant is less likely to be injured by the force of the airbag or crash event. Items that are positioned in the area where the side curtain airbag inflates can reduce the effectiveness of the airbag and also increase the likelihood of injuries to the occupants, this especially applies to children. The side curtain airbag is about 4 inches (10 cm) thick when it is inflated.

- When the airbag control module detects a collision requiring the **Driver Inflatable Knee Blocker**, it signals the inflator unit. A quantity of nontoxic gas is generated to inflate the Driver Inflatable Knee Blocker.

The Driver Inflatable Knee Blocker inflates rearward towards the driver's knees to help protect the knees and position you for the best interaction with the front airbag. The Driver Inflatable Knee Blocker fully inflates in about 50 milliseconds, this is only about half of the time it takes you to blink your eyes. It then quickly deflates while helping to protect the driver's knees.

- The Knee Impact Blockers help protect the knees and position you for the best interaction with the front airbags.

Side Airbags Supplemental Restraint System (SRS) — If Equipped

"Supplemental Side Curtain Airbag System", on vehicles equipped, consists of the following:

- AIRBAG Readiness Light (shared with the front airbag system)

- Left and Right Side Curtain Airbags Above Side Windows
- Airbag Control Module
- Interconnecting Wiring

If An Airbag Deployment Occurs

The airbag systems are designed to deploy when the airbag control modules detect a moderate-to-severe collision, to help restrain the driver and front passenger, and then immediately deflate.

NOTE: A collision that is not severe enough to need airbag protection will not activate the system. This does not mean something is wrong with the airbag system.

If you do have a collision which deploys the airbag, any or all of the following may occur:

- The airbag material may sometimes cause abrasions and/or skin reddening to the driver and front passenger as the airbags deploy and unfold. The abrasions are similar to friction rope burns or those you might get sliding along a carpet or gymnasium floor. They are not caused by contact with chemicals. They are not permanent and normally heal quickly. However, if you haven't healed significantly within a few days, or if you have any blistering, see your doctor immediately.
- As the airbags deflate you may see some smoke-like particles. The particles are a normal by-product of the process that generates the nontoxic gas used for airbag inflation. These airborne particles may irritate the skin, eyes, nose, or throat. If you have skin or eye irritation, rinse the area with cool water. For nose or throat irritation, move to fresh air. If the irritation continues, see your doctor. If these particles settle on your clothing, follow the garment manufacturer's instructions for cleaning.

- It is not advisable to drive your vehicle after the airbags have deployed. If you are involved in another collision, the airbags and seat belt pretensioners will not be in place to protect you.

WARNING

Deployed airbags and seat belt pretensioners cannot protect you in another collision. Have the airbags and seat belt pretensioners replaced by an authorized dealer as soon as possible.

Enhanced Accident Response

If the airbags and seat belt pretensioners deploy after an impact and the electrical system remains functional, vehicles equipped with power door locks will unlock automatically. In addition, approximately 5 seconds after the vehicle has stopped moving, the interior lights will illuminate until the ignition switch is turned off.

Maintaining Your Airbag System

WARNING

- Modifications to any part of the airbag system could cause it to fail when you need it. You could be injured because the airbags are not there to protect you. Do not modify the components or wiring, including adding any kind of badges or stickers to the steering wheel hub trim cover or the upper right side of the instrument panel. Do not modify the front bumper, vehicle body structure, or frame.
- You need proper knee impact protection in a collision. Do not mount or locate any aftermarket equipment on or behind the knee blockers.
- It is dangerous to try to repair any part of the airbag system yourself. Be sure to tell anyone who works on your vehicle that it has airbags.

Airbag Light

You will want to have the airbags ready to inflate for your protection in a collision. While the airbag system is designed to be maintenance free, if any of the following occurs, have an authorized dealer service the system immediately.

- The AIRBAG light does not come on or flickers during the 6 to 8 seconds when the ignition switch is first turned on.
- The light remains on or flickers after the 6 to 8 second interval.
- The light flickers or comes on and remains on while driving.

Child Restraint

Everyone in your vehicle needs to be buckled up at all times — babies and children, too. Every state in the United States and all Canadian provinces require that small children ride in proper restraint systems. This is the law, and you can be prosecuted for ignoring it.

Children 12 years and under should ride properly buckled up in a seat appropriate for their age and size. According to crash statistics, children are safer when properly restrained in the rear seats, rather than in the front.

WARNING

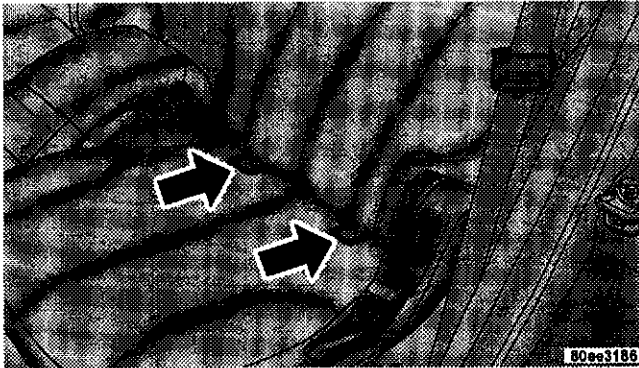
In a collision, an unrestrained child, even a tiny baby, can become a missile inside the vehicle. The force required to hold even an infant on your lap could become so great that you could not hold the child, no matter how strong you are. The child and others could be badly injured. Any child riding in your vehicle should be in a proper restraint for the child's size.

2

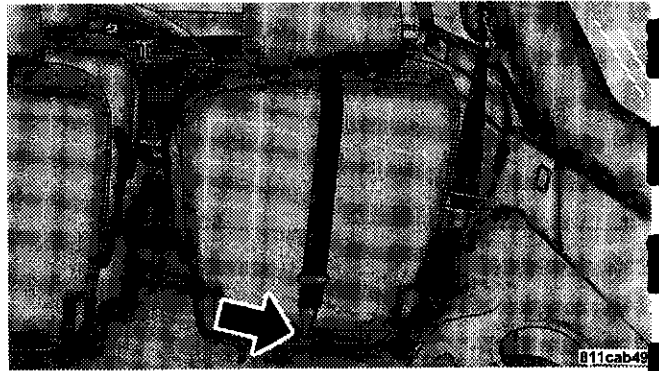
Lower Anchors and Tether for Children (LATCH)

Each vehicle is equipped with two child restraint anchorage systems called LATCH, which stands for Lower Anchors and Tether for Children. The LATCH child restraint anchorage systems are installed on all second-row seats.

The lower anchor bars of the LATCH System are located where the seat back meets the seat cushion.



The tether anchors are located on the rear surface of the seat.



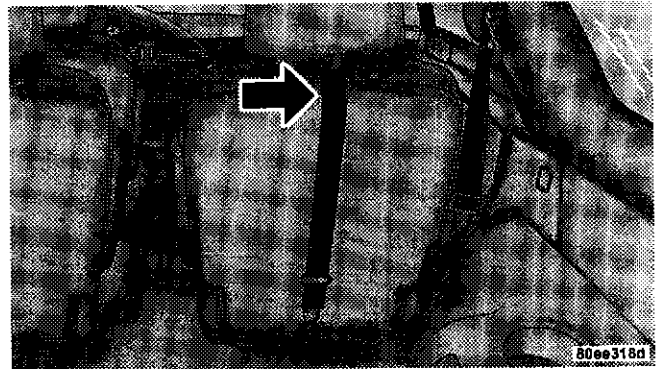
Child restraint systems designed to be compatible with the vehicle's LATCH System are now available. LATCH child restraints make installation into the vehicle simple and convenient.

When using the LATCH System, always follow the child restraint manufacturer's installation instructions.

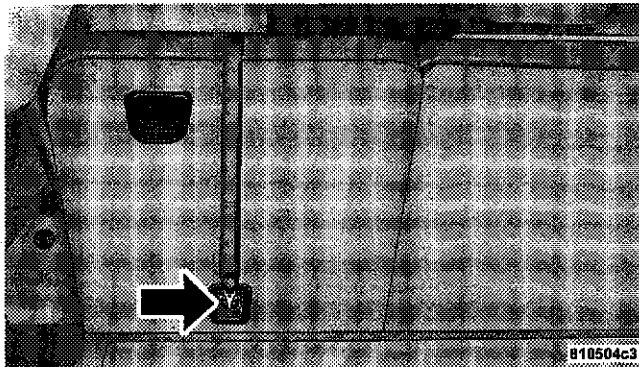
NOTE: If your child restraint seat is not LATCH compatible, install the restraint using the vehicle seat belts.

Tether Anchors

There are tether strap anchorages behind all second row seating positions and the driver's side third row seating position. The tether anchors are located in the rear surface of the seat. When using the tether anchorages in the second row seating position, ensure that the strap is routed over the top of the seatback and under the head restraint between the head restraint posts.



When the tether anchorage is used in the third row seating position, the strap should be positioned straight over the top of the seatback.



Infants and Children

There are different sizes and types of restraints for children from newborn size to the child almost large enough for an adult safety belt. Always check the child seat owner's manual to ensure you have the right seat for your child. Use the restraint that is correct for your child:

- Safety experts recommend that children ride rearward-facing in the vehicle until they are at least one year old and weigh at least 9 kg (20 lbs). Two types of child restraints can be used rearward-facing: infant carriers and "convertible" child seats. Both types of child restraints are held in the vehicle by the lap/shoulder belt or the LATCH child restraint anchorage system. Refer to "Lower Anchors and Tether for Children (LATCH)" in this section.

- The infant carrier is only used rearward-facing in the vehicle. It is recommended for children who weigh up to about 9 kg (20 lbs). "Convertible" child seats can be used either rearward-facing or forward-facing in the vehicle. Convertible child seats often have a higher weight limit in the rearward-facing direction than infant carriers do, so they can be used rearward-facing by children who weigh more than 9 kg (20 lbs) but are less than one year old.
- Rearward-facing child seats must **NEVER** be used in the front seat of a vehicle with a front passenger airbag. An airbag deployment could cause severe injury or death to infants in this position.
- Children who weigh more than 9 kg (20 lbs) and who are older than one year can ride forward-facing in the vehicle. Forward-facing child seats and convertible

child seats used in the forward-facing direction are for children who weigh 9 to 18 kg (20 to 40 lbs) and who are older than one year.

- The belt-positioning booster seat is for children weighing more than 18 kg (40 lbs), but who are still too small to fit the vehicle's seat belts properly. If the child can not sit with knees bent over the vehicle's seat cushion while the child's back is against the seat back, they should use a belt-positioning booster seat. The child and booster seat are held in the vehicle by the lap/shoulder belt. (Some booster seats are equipped with a front shield and are held in the vehicle by the lap portion.)

NOTE: For additional information refer to www.seatcheck.org.

- Improper installation can lead to failure of an infant or child restraint. It could come loose in a collision. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.
- A rearward facing child restraint should only be used in a rear seat. A rearward facing child restraint in the front seat may be struck by a deploying passenger airbag which may cause severe or fatal injury to the infant.

Here are some tips on getting the most out of your child restraint:

- Before buying any restraint system, make sure that it has a label certifying that it meets all applicable Safety Standards. We also recommend that you make sure

that you can install the child restraint in the vehicle where you will use it, before you buy it.

- The restraint must be appropriate for your child's weight and height. Check the label on the restraint for weight and height limits.
- Carefully follow the instructions that come with the restraint. If you install the restraint improperly, it may not work when you need it.

The passenger seat belts are equipped with cinching latch plates, which are designed to keep the lap portion tight around the child restraint so that it is not necessary to use a locking clip. Pulling up on the shoulder portion of the lap/shoulder belt will tighten the belt. The cinching latch plate will keep the belt tight, however, any seat belt system will loosen with time, so check the belt occasionally and pull it tight if necessary.

- Buckle the child into the seat according to the child restraint manufacturer's directions.
- When your child restraint is not in use, secure it in the vehicle with the seat belt or remove it from the vehicle. Don't leave it loose in the vehicle. In a sudden stop or collision, it could strike the occupants or seatbacks and cause serious personal injury.

Installing A Child Restraint

We urge that you carefully follow the directions of the manufacturer when installing your child restraint. Many, but not all, restraint systems will be equipped with separate straps on each side, with each having a hook or connector and a means for adjusting the tension in the strap. Forward-facing toddler restraints and some rearward-facing infant restraints will also be equipped with a tether strap, a hook and means for adjusting the tension in the strap.

In general, you will first loosen the adjusters on the lower straps and tether straps so that you can more easily attach the hook or connector to the lower anchorages and tether anchorages. Then tighten all three straps as you push the child restraint rearward and downward into the seat.

Child restraint systems having attachments designed to connect to the lower anchorages are now available. Child restraints having tether straps and hooks for connection to the seatback tether anchorage have been available for some time. In fact, many child restraint manufacturers will provide add-on tether strap kits for some of their older products.

Because the lower anchorages are to be introduced to passenger carrying vehicles over a period of years, child restraint systems having attachments for those anchorages will continue to have features for installation in vehicles using the lap or lap/shoulder belt. They will also

have tether straps, and you are urged to take advantage of all of the available attachments provided with your child restraint in any vehicle.

Not all child restraint systems will be installed as we have described here. Again, carefully follow the instructions that come with the child restraint system.

WARNING!

Improper installation of a child restraint to the LATCH anchorages can lead to failure of an infant or child restraint. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.

Children Too Large For Booster Seats

Children who are large enough to wear the shoulder belt comfortably, and whose legs are long enough to bend over the front of the seat when their back is against the seatback, should use the lap/shoulder belt in a rear seat.

- Make sure that the child is upright in the seat.
- The lap portion should be low on the hips and as snug as possible.
- Check belt fit periodically. A child's squirming or slouching can move the belt out of position.
- If the shoulder belt contacts the face or neck, move the child closer to the center of the vehicle. Never allow a child to put the shoulder belt under an arm or behind their back.

2004 MODEL YEAR

CHRYSLER



PACIFICA

PRICE INFORMATION

MANUFACTURER'S SUGGESTED RETAIL PRICE OF
THIS MODEL INCLUDING DEALER PREPARATION

Base Price: \$28,845

CHRYSLER PACIFICA FWD

Exterior Color: Bright Silver Metallic Paint

Interior Color: Dark Slate Gray

Interior: Premium Cloth Low-Back Bucket Seats

Engine: 3.5L MPI 24V V6 Engine

Transmission: Four-Speed Automatic Transmission

STANDARD EQUIPMENT (UNLESS REPLACED BY OPTIONAL EQUIPMENT)

FUNCTIONAL / SAFETY FEATURES

Next Generation Driver & Front-Passenger Air Bags**

Driver Side Inflatable Knee-Bolster Air Bag

LATCH-Ready Child Seat Anchor System

Rear Door Child-Protection Locks

Antilock Brakes

Four-Wheel Disc Brakes

AutoStick(R) Driver Interactive Transaxle Shifter

Load Leveling and Height Control

Performance Suspension

Brake-Park Interlock

INTERIOR FEATURES

Dual Zone Temperature Control Air Conditioning

Cabin Air Filtering System

Power Locks

Speed Control

Tilt Steering Column

Steering Wheel-Mounted Audio Controls

Front Seatback Grocery Bag Hooks

AM/FM Stereo Radio with CD Player

Infinity(R) Speaker System

Power Windows with One-Touch-Down Feature

Leather-Wrapped Shift Knob

Sun Visors with Illuminated Vanity Mirrors

Front and Rear Floor Center Consoles

Power Driver's and Front Passenger's Seats

Remote Keyless Entry

Security Alarm

Sentry Key(R) Engine Immobilizer Theft-Deterrent

Folding Flat Rear Seating - Load Floor

Front and Rear 12-Volt DC Power Outlets

EXTERIOR FEATURES

PRICE INFORMATION (cont'd)

Sunscreen Glass

Power Heated Foldaway Mirrors

17-Inch Aluminum Wheels

P235/65R17 BSW AS Performance Tires

OPTIONAL EQUIPMENT

Customer Preferred Package 26P

DESTINATION CHARGE

\$680

TOTAL PRICE: * \$29,525

** Certified to the federal regulations that allow
less forceful airbags

WARRANTY COVERAGE

7-year or 70,000-mile Powertrain Limited Warranty+

Towing assistance during Warranty period++

3-year or 36,000-mile Basic Limited Warranty

Assembly Point/Port of Entry: WINDSOR, ONTARIO, CANADA

VIN: 2C4-GM68464R-624863

L4-V6N: 2981

0213

SHIP TO: 65121 36
HARDIN MOTORS INC
SOUTH MAIN STREET
MT VICTORY OH 43340-

SOLD TO: 42 65121
HARDIN MOTORS INC
SOUTH MAIN STREET
MT VICTORY OH 43340-

THIS LABEL IS ADDED TO THIS VEHICLE TO COMPLY WITH FEDERAL LAW. THE LABEL CANNOT BE REMOVED
OR ALTERED PRIOR TO DELIVERY TO THE ULTIMATE PURCHASER.

* STATE AND/OR LOCAL TAXES, IF ANY, LICENSE AND TITLE FEES, AND DEALER SUPPLIED AND
INSTALLED OPTIONS AND ACCESSORIES ARE NOT INCLUDED IN THIS PRICE DISCOUNT, IF ANY,
IS BASED ON PRICE OF OPTIONS IF PURCHASED SEPARATELY.

For more information visit: www.chrysler.com
or call 1-800-CHRYSLER

DaimlerChrysler Motors Company LLC

THIS VEHICLE IS MANUFACTURED TO MEET SPECIFIC UNITED STATES REQUIREMENTS. THIS VEHICLE IS NOT MANUFACTURED FOR SALE OR REGISTRATION OUTSIDE OF THE UNITED STATES.

PARTS CONTENT INFORMATION

FOR VEHICLES IN THIS CARLINE:

U.S./CANADIAN PARTS CONTENT: 83 %

NOTE: PARTS CONTENT DOES NOT INCLUDE FINAL ASSEMBLY, DISTRIBUTION, OR OTHER NON-PARTS COSTS.

FOR THIS VEHICLE:

FINAL ASSEMBLY POINT:

WINDSOR, ONTARIO, CANADA

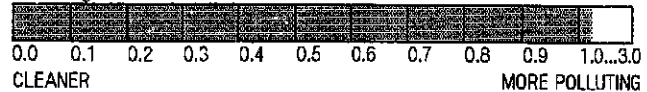
COUNTRY OF ORIGIN:

ENGINE: UNITED STATES

TRANSMISSION: UNITED STATES

Smog Index:

The Smog Index of this vehicle is **1.51**.



The Smog Index of the average new vehicle is **1.02**

The Smog Index (SI) indicates the relative level of smog-forming pollutants emitted by the vehicle. The lower the SI, the lower the vehicle's emissions.



Ask Your Dealer About A DaimlerChrysler
Service Contract On This Vehicle
Or Call 1-800-442-2666.

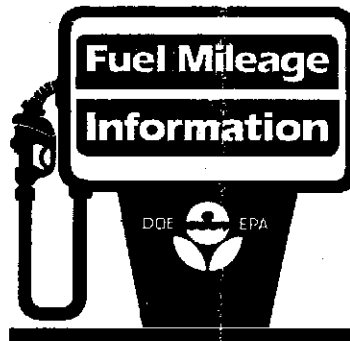


Ask dealer for a copy of the limited warranties.
+A deductible applies to the 7-year 70,000-mile powertrain limited warranty. 7/70 Transferable to second owner with fee. Excludes normal maintenance and wear items.
++ Towing assistance administered by Cross Country Motor Club Inc., Boston, MA 02155. You must call (800) 521-2779 for prior authorization to receive these benefits.

Compare this vehicle to others in the **FREE FUEL ECONOMY GUIDE** available at the dealer.

CITY MPG

17



HIGHWAY MPG

23

Actual Mileage will vary with options, driving conditions, driving habits and vehicle's condition. Results reported to EPA indicate that the majority of vehicles with these estimates will achieve between

14 and 20 mpg in the city, and between

19 and 27 mpg on the highway.

2004 PACIFICA 2WD
6 CYL, 3.5 L (215 CID),
MULTIPOINT FUEL INJECTION,
4-SPEED AUTOMATIC TRANS. W/
USER-SELECTABLE "AUTOSTICK"
W/ LOCKUP TORQUE CONVERTER

Estimated Annual Fuel Cost:
\$1105

For Comparison Shopping,
all vehicles classified as
SPECIAL PURPOSE
have been issued mileage ratings
ranging from 10 to 14 mpg city
and 14 to 30 mpg highway.

See www.fueleconomy.gov

Appendix D

Miscellaneous Test Information

Channel Report

04/19/2004 7:38:10 AM

Name of Test 040419-1

System K3600

Name of DAU DAU3

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol. Cal.	Group	Mfg.	Model
3000	EVENT	EVENT	EVENT		10.24	+	OK	TRC	Event
3001	C15351	SLDXG	SLED G LONG.	Rear	199.58523	-	OK	Endevco	7231C
3002	C15519	SLDXGR	SLED G LONG	Rear	200.05001	-	OK	Endevco	7231C
3003	SLDXV	SLDXV	SLED VELOCITY		164.82632	-	OK	TRC	SLDXV
3004	A61G	SLDXGT	SLED TRIGGER/SLDXGT	Rear	200.15167	-	OK	Endevco	7231C
3005	P34003	LBXG	RR SEAT X-MEMBER LT	Fwd	200.25187	+	OK	Endevco	7264C-2K-2-180
3006	P33562	RBXG	RR SEAT X-MEMBER RT	Fwd	200.12977	+	OK	Endevco	7264C-2K-2-180
3007	P33833	TEXG	TOP OF ENGINE BLOCK	Fwd	199.75966	+	OK	Endevco	7264C-2K-2-180
3008	P33526	RAXG	RR AXLE	Rwd	199.56462	-	OK	Endevco	7264C-2K-2-180
3009	GB86	HEDXG1	Head Accel X	Rwd	399.01959	-	OK	Endevco	7231C
3012	GB77	HEDYG1	Head Accel Y	Lft	399.04914	-	OK	Endevco	7231C
3013	A54F	HEDZG1	Head Accel Z	Up	399.03359	-	OK	Endevco	7231C
3014	1716A-1222-FX	NEKXF1	Neck Force X	Hd	8901.8939	-	OK	Denton	1716A
3015	1716A-1222-FY	NEKYF1	Neck Force Y	Hd	8900.2923	+	OK	Denton	1716A
3016	1716A-1222-FZ	NEKZF1	Neck Force Z	Hd	13342.680	+	OK	Denton	1716A
3017	1716A-1222-MX	NEKXM1	Neck Moment X	Rt Ear	282.39058	-	OK	Denton	1716A
3018	1716A-1222-MY	NEKYM1	Neck Moment Y	Chn	282.58263	+	OK	Denton	1716A
3019	1716A-1222-MZ	NEKZM1	Neck Moment Z	Chn	282.70168	+	OK	Denton	1716A
3020	C14135	CSTXG1	Chest Accel X	Fwd	401.55917	+	OK	Endevco	7231C
3021	A35D	CSTYG1	Chest Accel Y	Lft	399.67526	g	OK	Endevco	7231C
3022	AH5G8	CSTZG1	Chest Accel Z	Down	399.66902	g	OK	Endevco	7231C
3023	14CB1-2847-229	CSTXDI	Chest Deflection X	Strum	99.901464	mm	OK	Servo	14CB1-2847
3024	2430-901	LFMZFI	Left Femur Force Z 603	Knee	13342.506	N	OK	GSE	2430
3025	2430-902	RFMZFI	Right Femur Force Z 744	Knee	13355.941	N	OK	GSE	2430
3026	AD4H9	HEDXG2	Head Accel X	Rear	400.70593	g	OK	Endevco	7231C
3027	AD4J7	HEDYG2	Head Accel Y	Lft	398.61264	g	OK	Endevco	7231C
3028	AD4J8	HEDZG2	Head Accel Z	Up	398.92477	g	OK	Endevco	7231C
3029	1716-0235-FX	NEKXF2	Neck Force X	Hd	8893.5209	N	OK	Denton	1716
3030	1716-0235-FY	NEKYF2	Neck Force Y	Hd	8890.2239	N	OK	Denton	1716
3031	1716-0235-FZ	NEKZF2	Neck Force Z	Hd	13341.671	N	OK	Denton	1716
3032	1716-0235-MX	NEKXM2	Neck Moment X	Rt Ear	282.42568	N-m	OK	Denton	1716
3033	1716-0235-MY	NEKYM2	Neck Moment Y	Chn	282.54938	N-m	OK	Denton	1716

Channel Report

04/19/2004 7:38:10 AM

3034	1716-0235-MZ	NEKZM2	Neck Moment Z	Chn	282.19155	N·m	+	03/15/2004	OK	230n	Denton	1716
3035	ACTR4	CSTXG2	Chest Accel X	Fwd	400.04688	g	+	03/15/2004	OK	230n	Endevco	7231C
3036	ACTT4	CSTYG2	Chest Accel Y	Left	399.13157	g	-	03/15/2004	OK	230n	Endevco	7231C
3037	ACTW0	CSTZG2	Chest Accel Z	Down	399.23583	g	+	03/15/2004	OK	230n	Endevco	7231C
3038	85427-1	CSTXD2	Chest Deflection X	Strum	99.778810	mm	+	03/16/2004	OK	230n	Servo	14CBI-2847
3039	2430-984	LFMZP2	Left Femur Force Z 60	Knee	13354.199	N	+	03/15/2004	OK	230n	GSE	2430
3040	2430-985	RFMZP2	Right Femur Force Z S1511	Knee	13345.845	N	+	03/15/2004	OK	230n	GSE	2430

Digital and System Channel Report

2004 04-19 07:43:19

Name of Test 040419-1
 enable Channel Short Name
 d Yes 3500
 System K3600
 Name of DAU DAU3
 Data File DAT33500
 Module Type KM3650 Sequencer

bit position	bit	short	long	descriptio
MSB = bit 15	0			
bit 14	0			
bit 13	1	Switch		Backup Switch
bit 12	1	ABEVT1		DR AIRBAG EVENT PRI
bit 11	1	ABEVT2		DR AIRBAG EVENT SEC
bit 10	1	ABEVT3		PASS AIRBAG EVENT PRI
bit 09	1	ABEVT4		PASS AIRBAG EVENT SEC
bit 08	1	ABEVT5		DR KNEE BOLSTER AIRBAG EVENT
bit 07	0			
bit 06	0			
bit 05	0			
bit 04	0			
bit 03	0			
bit 02	0			
bit 01	0			
LSB = bit 00	0			

Dummy 229n Type HYBRID III 50TH NHTSA - 229n HYBRID III 50TH CAL DUE 9-15-04 (DKS 3-15-04)J211

Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/	Fullscal	Caldat	Pos Output	Flip
HEDXG	Head Accel X	7231C	GB86	Endevco	0.01959	750	3/15/2004	Rwd	1
HEDYG	Head Accel Y	7231C	GB77	Endevco	0.01915	750	3/15/2004	Lft	1
HEDZG	Head Accel Z	7231C	A54F	Endevco	0.01974	750	3/15/2004	Up	1
NEKXF	Neck Force X	1716A	1716A-1222-FX	Denton	0.0001953	8896.4	3/15/2004	Hd Fd,Cst Rt	1
NEKYF	Neck Force Y	1716A	1716A-1222-FY	Denton	0.0001908	8896.4	3/15/2004	Hd Lt,Cst Rt	0
NEKZF	Neck Force Z	1716A	1716A-1222-FZ	Denton	0.0000998	13344.6	3/15/2004	Hd Up,Cst Dn	0
NEKXM	Neck Moment X	1716A	1716A-1222-MX	Denton	0.0060842	282.5	3/15/2004	Rt Ear to Rt Shld	1
NEKYM	Neck Moment Y	1716A	1716A-1222-MY	Denton	0.0059308	282.5	3/15/2004	Chn to Strmm	0
NEKZM	Neck Moment Z	1716A	1716A-1222-MZ	Denton	0.0085028	282.5	3/15/2004	Chn to Lt Shld	0
CSTXG	Chest Accel X	7231C	C14135	Endevco	0.02742	750	3/15/2004	Fwd	0
CSTYG	Chest Accel Y	7231C	A35D	Endevco	0.01912	750	3/15/2004	Lft	1
CSTZG	Chest Accel Z	7231C	AH5G8	Endevco	0.01941	750	3/15/2004	Down	0
CSTXD	Chest Deflection X	14CB1-2847	14CB1-2847-229	Servo	1.1389	100	3/16/2004	Strmm Away Frm Spn	0
LFMZ	Left Femur Force Z 603	2430	2430-901	GSE	0.0000708	13344.7	3/15/2004	Knee Fd,Pel Rt	0
RFMZ	Right Femur Force Z 744	2430	2430-902	GSE	0.0000697	13344.7	3/15/2004	Knee Fd,Pel Rt	0

NHTSA - 230n HYBRID III 50TH CAL DUE 9-15-04 (DKS 3-16-04)J211

Dummy 230n Type HYBRID III 50TH

Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/	Fullscal	Caldat	Pos Output	Flip
HEDXG	Head Accel X	7231C	AD4H9	Endevco	0.01981	750	3/15/2004	Rear	1
HEDYG	Head Accel Y	7231C	AD4I7	Endevco	0.01961	750	3/15/2004	Left	1
HEDZG	Head Accel Z	7231C	AD4J8	Endevco	0.0193	750	3/15/2004	Up	1
NEKXF	Neck Force X	1716	1716-0235-FX	Denton	0.0001919	8896.4	3/15/2004	Hd Fd,Cst Rr	1
NEKYF	Neck Force Y	1716	1716-0235-FY	Denton	0.0001879	8896.4	3/15/2004	Hd L1,Cst Rt	0
NEKZF	Neck Force Z	1716	1716-0235-FZ	Denton	0.0000936	13344.6	3/15/2004	Hd Up,Cst Dn	0
NEKXM	Neck Moment X	1716	1716-0235-MX	Denton	0.0058955	282.5	3/15/2004	Rt Ear to Rt Shld	1
NEKYM	Neck Moment Y	1716	1716-0235-MY	Denton	0.0058266	282.5	3/15/2004	Chn to Strmm	0
NEKZM	Neck Moment Z	1716	1716-0235-MZ	Denton	0.0083228	282.5	3/15/2004	Chn to Lt Shld	0
CSTXG	Chest Accel X	7231C	ACTR4	Endevco	0.01969	750	3/15/2004	Fwd	0
CSTYG	Chest Accel Y	7231C	ACTT4	Endevco	0.01929	750	3/15/2004	Left	1
CSTZG	Chest Accel Z	7231C	ACTW0	Endevco	0.01973	750	3/15/2004	Down	0
CSTXD	Chest Deflection X	14CB1-2847	85427-1	Servo	1.1403	100	3/16/2004	Strmm Away Frm Spn	0
LFMZP	Left Femur Force Z 60	2430	2430-984	GSE	0.000071	13344.7	3/15/2004	Knee Fd,Pel Rr	0
RFMZP	Right Femur Force Z S1511	2430	2430-985	GSE	0.0000695	13344.7	3/15/2004	Knee Fd,Pel Rr	0

C40307 2004 Chrysler Pacifica S040419

